HITACHI

Auto Install System — simply plug in all leads and press the OPERATE button.

VIDEO CASSETTE RECORDER

VT-FX980E(UKN)

Instruction manual

VIDEO Plus+ DELUXE

VIDEO Plus+ and PlusCode are registered trademarks of Gemstar Development Corporation. The VIDEO Plus+ system is manufactured under licence from Gemstar Development Corporation.

COMMERCIAL ▸▸ ADVANCE®

COMMERCIAL ▸▸ ADVANCE® is a registered trademark of SRT, Inc. A Jerry Iggulden invention licensed in association with Arthur D. Little Enterprises, Inc.

FOR FURTHER INFORMATION PLEASE CONTACT OUR CUSTOMER HELP LINE ON 01628-643029

VHS
PAL

To obtain the best performance please read this instruction manual completely.

QR32061

Dear Hitachi Customer

Congratulations on your choice of a Hitachi Video Cassette Recorder (VCR). And welcome to our company-wide commitment to your complete satisfaction and viewing enjoyment.

INFORMATION FOR YOUR SAFETY

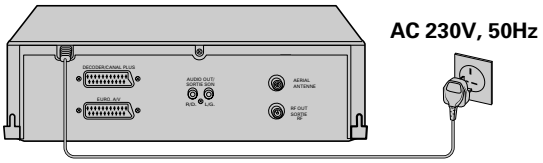
Please read the following instructions carefully before using this VCR.

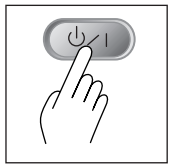
The mains lead on this equipment is supplied with a moulded plug incorporating a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced, an ASTA or BSI approved BS1362 fuse must be used of the same rating.
If the fuse cover is detachable, never use the plug with the cover omitted.
If a replacement fuse cover is required, ensure it is of the same colour as that visible on the pin face of the plug. Fuse covers are available from your dealer.
DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.
If there is no alternative to cut off the mains plug, ensure that you dispose it immediately, having first removed the fuse, to avoid a possible shock hazard by inadvertent connection to the mains supply.

IMPORTANT
The wires in the mains lead are coloured in accordance with the following code:
Blue = Neutral, Brown = Live
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLUE or BLACK. The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.
On no account connect either of these wires to the terminal marked E or by the earth symbol ⏚ or coloured green or green and yellow.

WARNING: To prevent fire or electric shock, do not expose this equipment to rain or moisture.

Mains supply: AC 230V, 50 Hz only





- The OPERATE button located on the front of the VCR switches the VCR on and off, leaving the clock facility unaffected.
- The OPERATE button is labelled "⏻ / I" this button allows you to select operate on or electrical power standby.
- The OPERATE button is secondarily connected and does not separate the apparatus from the mains supply in the switched-off position.

Safety
- Do not remove panel covers by unscrewing.
  There are no user serviceable parts inside. Refer all servicing to qualified service personnel.
- Should any solid object or liquid fall into the cabinet, remove the mains lead and have it checked by qualified personnel before operating it any further.
- To disconnect the mains lead, pull out the plug itself. Never pull the lead.
- If the unit is to be left unattended for a long period and it is not intended to use the timer recording function, it is recommended to switch off the VCR and removed the plug. If you intend to record during your absence, remember there is no necessity for the TV receiver to be switched on.

Cautions:
When the VCR is moved from a cold to a warm place, **dew** condensation can occur on the cylinder.
To avoid damaging the cylinder or tape **do not operate** the set immediately. Allow it to dry by **leaving it powered on** for 2 ~ 3 hours.

CONTENTS

CAUTION:
AUTO INSTALL SYSTEM — Please ensure that all leads are connected as illustrated as in page 6 and 7, otherwise auto installation will not work.

This instruction manual consists of the following four sections.

Section-1 Setting Up

This section tells you how to set up your new VCR and how to use the VCR controls.

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Customer Controls 8
Remote Operation 10
Auto Installation Function 11
Pre-tuning of Built-in TV Tuner 13
Auto Clock Setting Using PDC Signal 19
Setting the Clock Manually 20
Cassette Tapes 21

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Playback 23
Playback Using Jog/Shuttle Ring 26
Recording TV Programmes 27
Tape Analyzer 30
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Timer Recording 32
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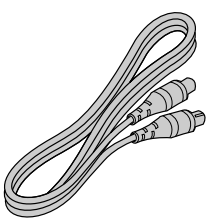
FEATURES

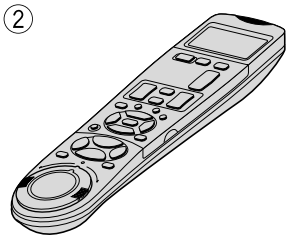
- **The VIDEO Plus+® programming system allows you to programme the VCR for timer recording by simply entering a PlusCode® programming number.**
- **MOVIETEXT™**
  * MOVIETEXT is a registered trademarks of Hitachi Home Electronics (Europe) Ltd.
- **Satellite receiver controller.**
- **Tape Navigation allows you to automatically locate a programme you want to view, and also to list on the TV screen the recorded contents of every tape you have recorded on this VCR.**
- COMMERCIAL▸▸ADVANCE® **– a feature which allows the VCR to automatically or manually skip past detected commercial groups during replay of a recorded television broadcast.**
- **"Satellite/Cable box" decoder socket provided.**
- **The built-in digital stereo sound decoder permits the reception of NICAM (Near Instantaneous Compand Audio Multiplex) broadcast.**
- **12-programme/1-year preset recording.**
- **Dynamic picture equalizer.**
- **Shuttle function on remote control and VCR** — shuttle control for fast search and variable speed playback.
- **Auto Install System (Plug and Play)** — tunes in stations, selects correct order, sets clock and date.
- **Auto Tuning** — tunes in stations, sorts correct order, and sets clock.
- **High quality slow motion/still frame pictures.**
- **Stereo Sound** — record and playback.
- **Phono audio outputs.**
- **NTSC playback.**
- **Graphic OSD.**
- **Setting the clock using a PDC signal (Auto clock set).**
- **Automatic controls for easier operation.**
  - —Auto Programme Play immediately starts to play a recorded programme by simply turning on the VCR after timer recording has finished.
  - —Auto Head Cleaning system minimizes the need for accessory cleaners and professional head cleaning.
  - —Auto Tracking system automatically adjusts the tracking so the picture is optimized.
  - —Rental Play immediately starts to play a tape without its safety tab, rewinds the tape after play is ended and eject it, then turns off the VCR.
  - —Auto Play immediately starts to play a tape without its safety tab.
  - —Auto Eject & Auto Tape Canceller ejects a cassette without its tab when the REC or REC/IRT button is pressed.
  - —Auto Operate On turns on the VCR by simply inserting a cassette.
  - —Auto Rewind/Rewind Shut-off automatically rewinds a tape at its end and automatically shuts off at its beginning if the VCR is switched off into standby mode, while rewinding.
- **Fine slow motion.**
- **Easy preset tuning provides up to 49 programmes.**
- **Instant Recording Timer (IRT) allows you to quickly set-up the VCR to record a TV programme for a specified period.**
- **The supplied remote control handset can operate not only two VCRs but also 15 different types of TVs.**
- **Index function** — convenient for locating the desired programme on your tape.
- **PDC (Programme Delivery Control) function** — corrects the start and stop times of a timer recording if the TV station delays programme.
- **Video and audio dubbing allows you to simply and easily insert new video and audio sequence into existing tape.**
- **VIDEO LINK allows you to easily prepare the VCR to record signals from a satellite/cable decoder.**
- **Soap Recording function is an easy way to set timer programming by choosing a registered programme from Tape Navi data menu.**
- **Navi Lock function prevent accidently deleting of important programmes.**
- **Tape Analyzer (ATRS) automatically detect the type of tape used during recording.**

Accessories supplied

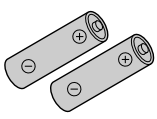
Check and identify the accessories supplied.
If any are missing or appear damaged, consult your dealer.

① 

Aerial Cable for connecting this VCR and a TV

② 

Remote Control Handset

③ 

2 pcs.

Batteries for remote control handset (R6)

Section-1 Setting Up

Connection Pages 6 — 7

This tells you how to connect your VCR to an aerial, TV, etc.

Customer Controls Pages 8 — 9

This tells you the location and the detailed functions of the switches, buttons, VCR display and connection terminals on the VCR.

Remote Operation Page 10

This tells you how to insert batteries into the remote control handset and how to operate your VCR remotely.

Auto Installation Function Page 11

This tells you how to automatically tune in all broadcast channels and set the clock and date.

Pre-tuning of Built-in TV Tuner Pages 13 — 18

This VCR incorporates a complete TV tuner (just like your normal TV) and can be pre-tuned to receive up to 49 TV programmes.
To preset satellite programmes, see page 73.

Auto Clock Setting using PDC signal and Setting the Clock Manually Pages 19 — 20

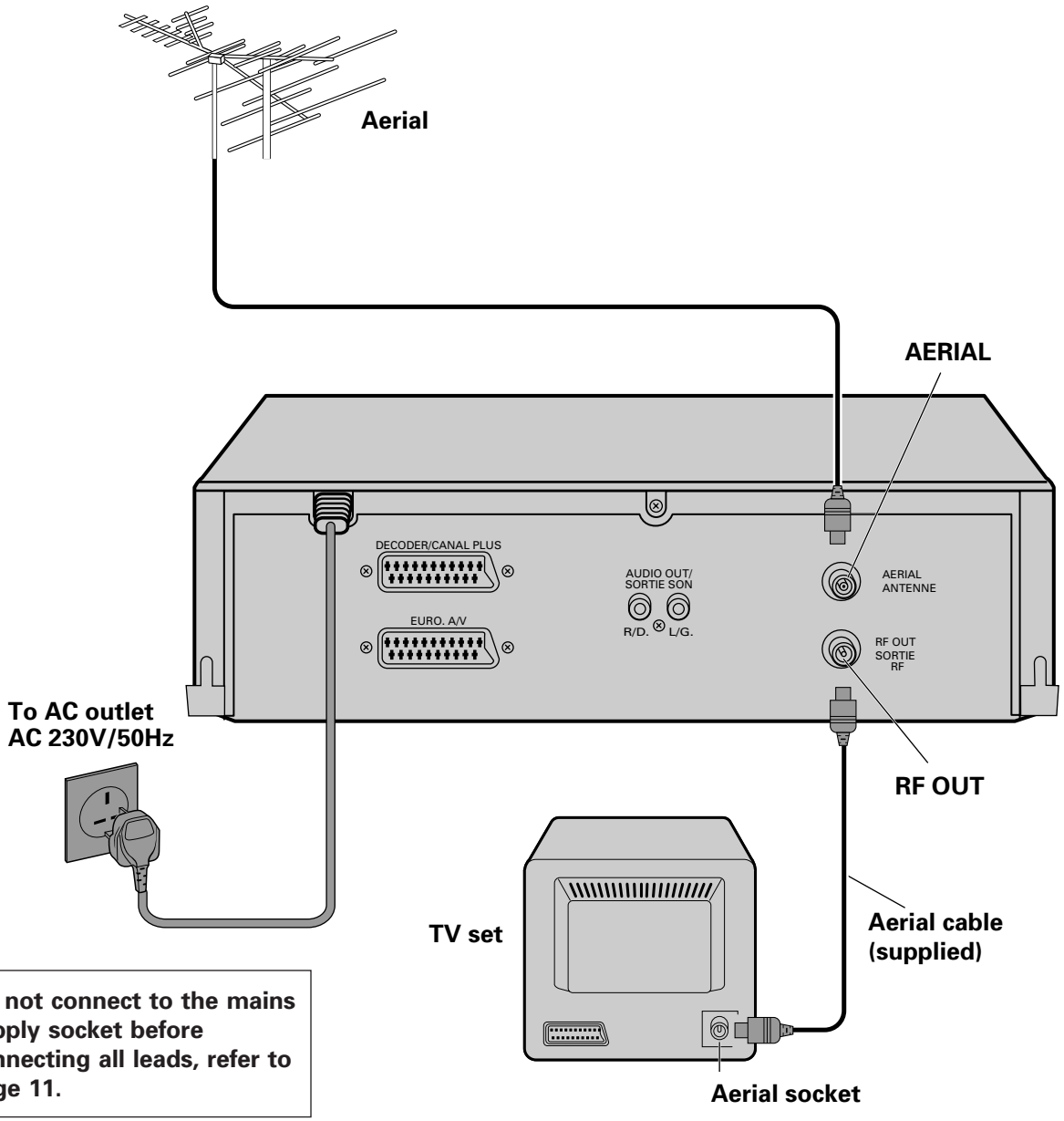
The clock display area in the VCR display panel will look like "––:––" until you set the 24-hour clock. The clock must be set to the correct time before you can programme the VCR for timer recording and instant recording timer.
This section explains the two clock setting methods.
A. Setting the VCR clock automatically using a PDC signal.
B. Setting the remote control clock, then transferring the set time to the VCR to set the VCR clock.

Cassette Tapes Page 21

This tells you how to insert and remove a cassette, and how to protect recordings from accidental erasure.

CONNECTION

Basic Method



Do not connect to the mains supply socket before connecting all leads, refer to page 11.

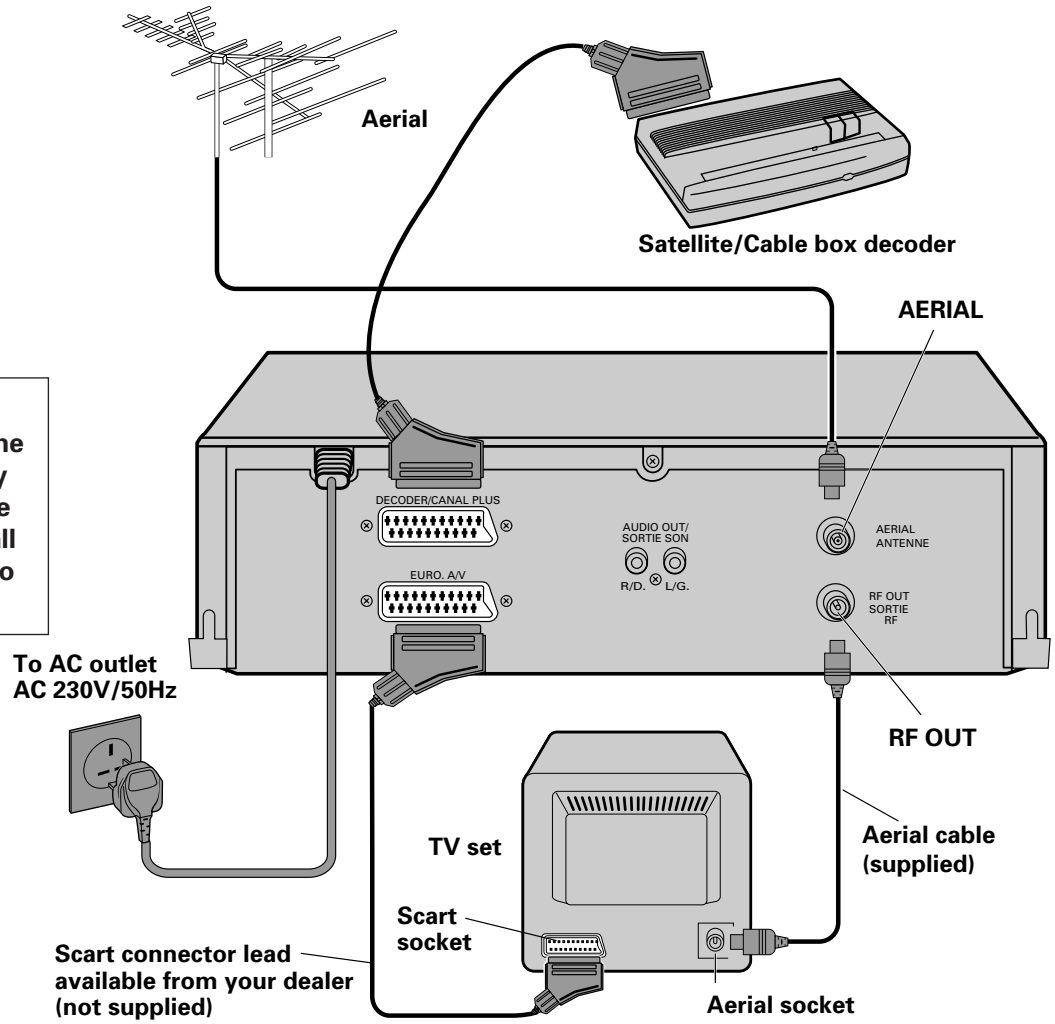
For even better sound and picture quality we recommend to use scart connection.
Please refer page 7 for scart connection.

PRECAUTIONS

On Installation

- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibrations or shocks.
- Never bring a magnet or magnetized object near the VCR because it will adversely affect the performance of the VCR.
- Ensure the VCR is installed on a flat surface.
  The unit is designed for operation in a horizontal position.

Connecting your VCR to your television using scart lead.



Do not connect to the mains supply socket before connecting all leads, refer to page 11.

Set your TV to its proper AV line (scart lead) to receive signal via the scart connector lead. This connection will improve the picture and sound quality.
Make sure the VCR **indicator lights in the VCR display to feed the audio and video signals from the VCR to TV. If not, press the VCR/TV button on the handset to display it.**

This connection also allows you to record the TV programme selected on the TV. To do this, press the AUX button on the remote control handset to display the "L1" indicator in the VCR's display instead of a VCR programme number.

Operation

- Moisture condensation
  Moisture condensation on the cylinder, one of the most crucial parts of the VCR, will cause damage to the tape.
  The VCR should not be operated for at least 2 hours after being moved from a cold to a hot environment to avoid condensation from occurring on the cylinder.

Cleaning

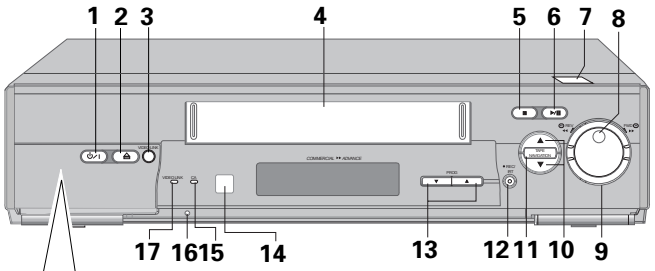
- DO NOT use volatile agents such as benzine, alcohol, thinner, or chemically processed cloth to wipe the surface of the VCR case. These agents may cause the surface finish to deteriorate or peel off.

Repacking

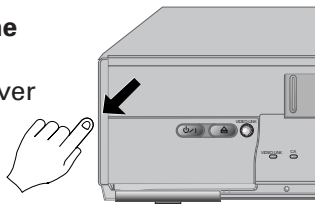
- It is wise for you to save the packing materials and box in case you ever need to ship or store your unit.

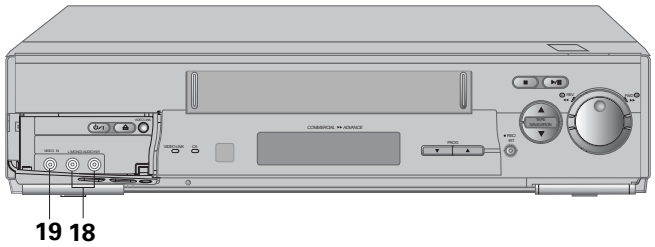
CUSTOMER CONTROLS

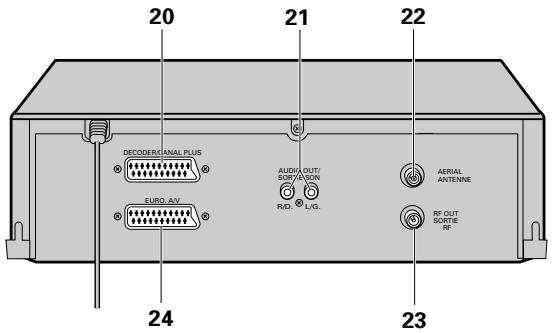
VCR Customer Controls

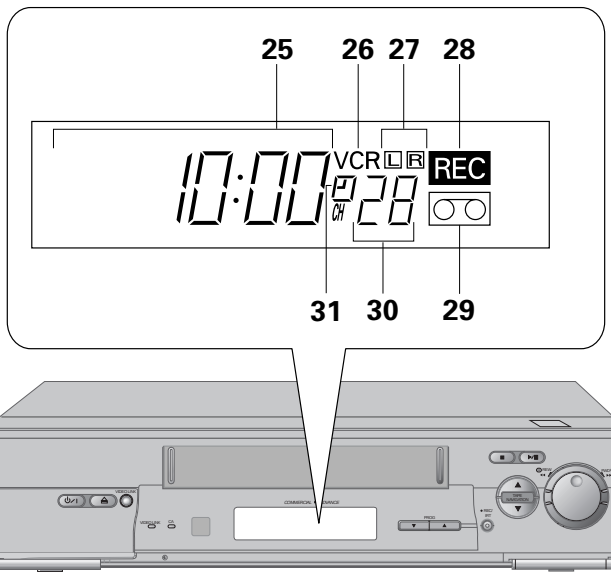


To open the cover:
Pull the cover forward.









Item No.	Function	Page
1	OPERATE (⏻ / I) (Standby/operate) button	2
2	EJECT (⏏) button	21
3	VIDEO LINK button	40
4	Cassette compartment	21
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6	PLAY/STILL (▶/⏸) button	23
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20	Decoder socket	71
21	AUDIO OUT (L), (R) sockets for stereo system connection	–
22	AERIAL — signal input	6
23	RF OUT — signal out to TV	6
24	Scart socket	7
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25	Time, ["–" appears during reverse direction viewing]	20
	Time counter or	55
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	PLAY —playback	23
	SRCH —visual search	24
	SLOW —slow play	23
	REW —rewind	24
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26	VCR, operate mode	23
27	Audio indicators	25
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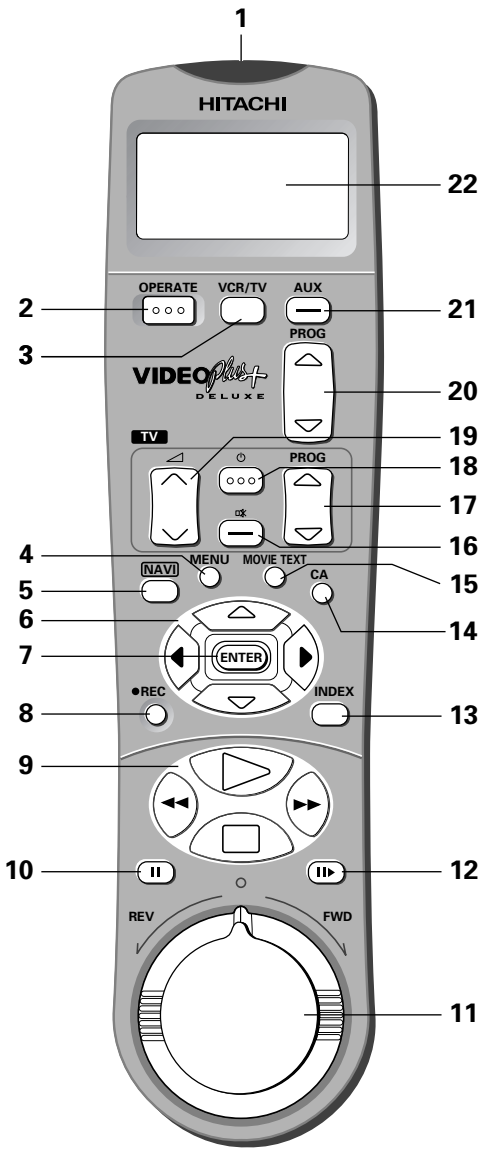
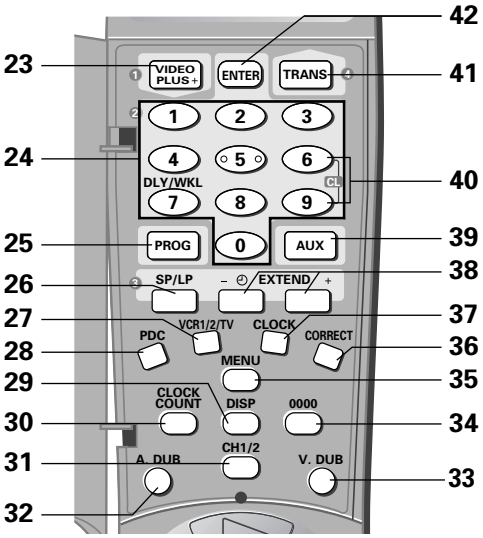
29	Tape-in indicator	21
30	TV programme number or	27
	Auxiliary (L1/L2/L3)	63
31	Timer indicator	32

Remote Control Handset Customer Controls





Item No.	Function	Page
1	Transmission window	10
2	OPERATE — switch between operate and standby mode	32
3	VCR/TV select button	23
4	MENU — to recall OSD menu	58
5	NAVI button	44
6	Cursor buttons	13
7	ENTER button	13
8	REC — record button	27
9	Tape transport button ▷ — playback ◀◀ — rewind or search ▶▶ — fast forward or search □ — stops play/record function	24
10	Pause/still button	23
11	Shuttle knob	26
12	Frame advance during still	23
13	INDEX button — INDEX feature	57
14	COMMERCIAL▸▸ADVANCE® button	54
15	MOVIE TEXT button	53
16	TV mute button — Buttons used exclusively to operate the TV	80
17	TV PROG button	80
18	TV Operate button	80
19	TV volume button	80
	Note: Four buttons 16 – 19 are used only when operating the TV.	
20	PROG (programme up/down) button	13
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23	VIDEO Plus+ programming button	33
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25	PROG — to enter timer programme information	36
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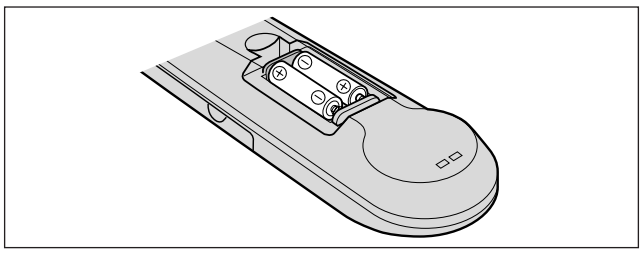
33	V. DUB button	64
34	0000 — clears time counter	55
35	MENU — to recall OSD menu	58
36	CORRECT button	20
37	CLOCK — enter or correct time on handset	20
38	◴ EXTEND (– or +)	33
39	AUX — to select L1 or L2 input	36
40	CL buttons — mode lock	55
41	TRANS button — transmits data	34
42	ENTER button — to enter PlusCode programming number	33

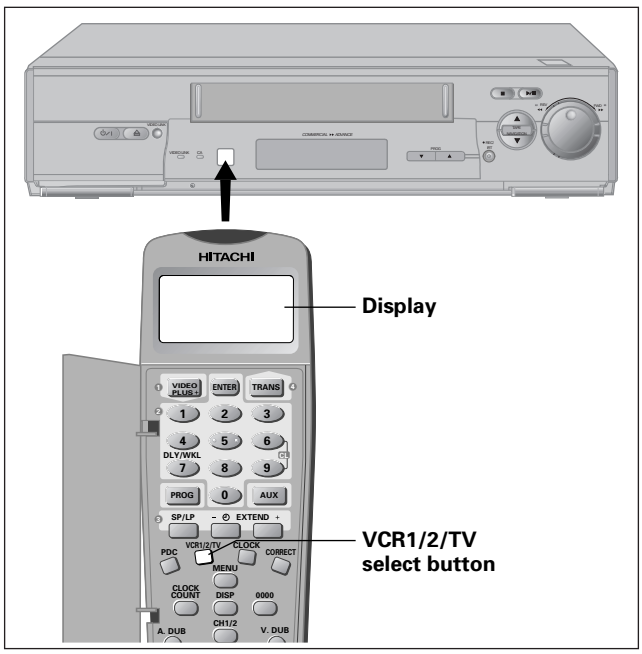
REMOTE OPERATION

Power source of infrared remote control handset



The infrared remote control handset is powered by two batteries (size IEC standard R6). The life of the batteries is about six months although this depends on the number of times the handset is used.
Replace the batteries when operation is not possible or when the operating distance becomes too small.
Note: When replacing the batteries, remove the used batteries and press the OPERATE button and hold it pressed for 10 seconds, then insert the new batteries and replace the battery cover.

Remote operations

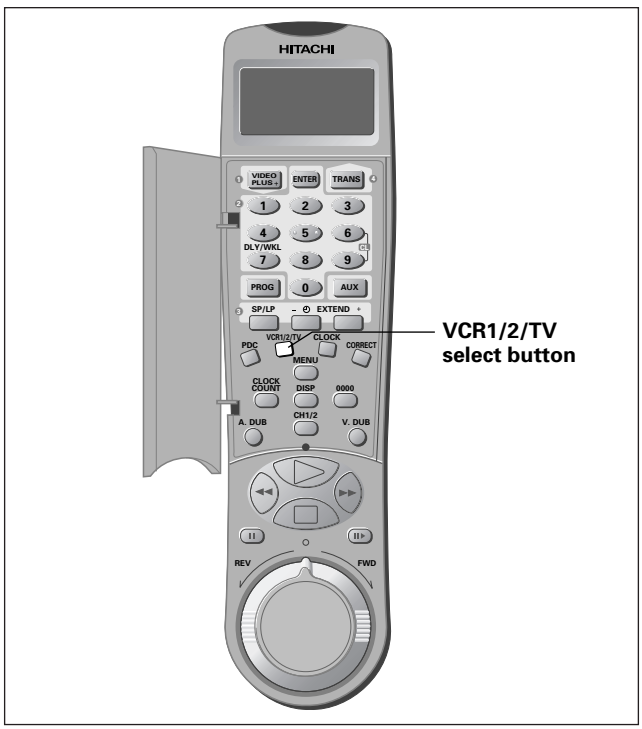


To operate this VCR with the remote control handset, press the VCR1/2/TV select button on the handset to display "VCR 1" or "VCR 2", then point it at the receiver on the front of the VCR.

- The REC, play ▷, rewind ◄◄, fast forward ►►, stop □, pause (II) and frame advance (II►) buttons can control your VCR even if "TV" is displayed when the "REMOTE " display (see page 60 for details) is set to (1) or (–)
- This VCR is designed so it can be controlled when either "VCR 1" or "VCR 2" is selected (see page 60).

Note: Be sure to press the mark (▷, ◄◄, ►►, □) of the tape transport button on the remote control to operate the VCR, not the centre of the buttons. Pressing the centre of the button could cause a malfunction.

VCR 1/2/TV Select button



The supplied remote control handset is designed to operate up to two types of Hitachi VCRs and 15 different types of TV.

- Refer to page 79 when using the handset to operate the TV.
- For dubbing your own tapes, as an example, the recording VCR and playback VCR can be controlled by a single handset. In order to operate two VCRs, set this VCR remote code to "VCR 2", and the other VCR to "VCR 1", following the "REMOTE (1), (2) or (–)" section on page 60.

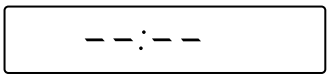
AUTO INSTALLATION FUNCTION

Auto Install (Plug & Play) function

This automatically tunes all broadcast channels, sets the clock and date.

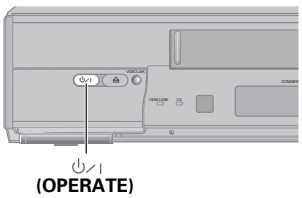
Controls **VCR/TV screen**

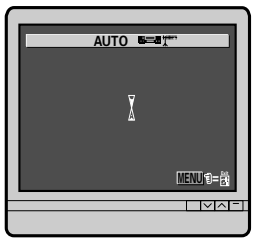
1



Switch on the mains supply socket after completely connecting all leads (as described on pages 6 and 7).
The VCR will be in standby mode at this stage and the VCR display will show " – – : – –".

2





Press the OPERATE button.

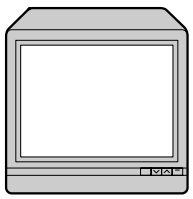
" Auto " will appear in the VCR display.

During this time, if your set-up includes Scart connector and the TV is set to Scart input, the TV screen will display as shown.

3

After this process is complete, the RF output channel will appear in the VCR display.
For Example, RF output channel 35.

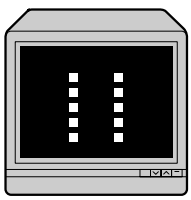
4



Switch on your TV and select an unused programme number, i.e. one not used for BBC1, ITV, etc. (Please consult your TV instruction manual as your TV may have a special VCR programme number which must be used.)

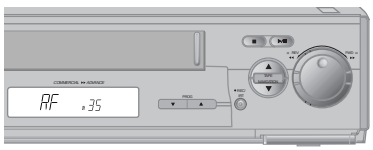
Note: This programme number will be your VCR programme from now on.

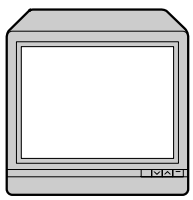
5



Tune your TV (consult your TV instruction manual) until the test pattern shown appears.
The correct tuning position is when the picture is clear. Ensure this programme is stored in your TV.

6



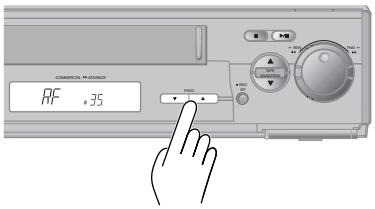


If " RF OFF " appears, press the stop button on the VCR or on the remote control handset. The RF channel data will appear in the VCR display. Press the PROG ▲ or ▼ button on the VCR to change the RF channel to " RF 35 ". To stop the RF output, press the stop button on the VCR or on the remote control again.

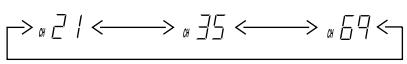
(AUTO INSTALLATION FUNCTION)

VCR **TV**

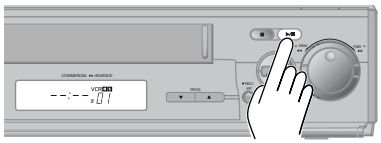
7

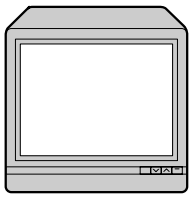


If you cannot tune your TV correctly to the test signal, or if there is distortion in the signal, it may be necessary to change the VCR RF channel.
In this case, press the PROG select button (▲ or ▼) on the VCR to change the VCR RF channel, and then retune your TV. If the test signal does not improve, continue to change the VCR RF channel and retune your TV until a clear test pattern is received. If the STOP button on the remote control or on the VCR is pressed, the RF from the VCR will be turned off.
The VCR RF channel will change as follows:



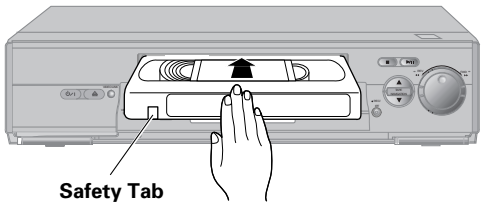
8





Press the play/still (▶/II) button, the test pattern will disappear and the VCR will now come out of standby mode into operate mode.

9



You should now be able to playback a prerecorded cassette.
Insert the cassette carefully (see page 21 for CASSETTE TAPES). If the safety tab is removed then playback will start immediately. If not, press the play/still (▶/II) button and the picture will appear on the screen.

PRE-TUNING OF BUILT-IN TV TUNER

Controls TV Screen

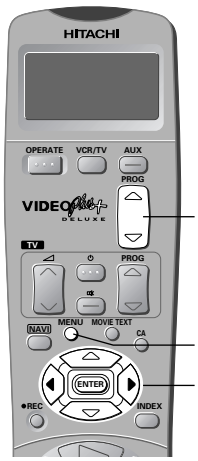
The VCR should display "– –:– –" in it's LCD panel after the main supply is connected.

1 **Turn on the TV and the VCR, then tune the TV to the video programme number.**
If you connect the VCR and TV using a 21-pin Scart connector lead, select the 21-pin Scart input of the TV.

2

Press the MENU button.
The menu, as illustrated, appears on the TV screen.

3



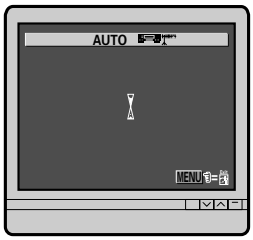
PROG

MENU

Cursor

Press the ▶ cursor button to select the CH option, and press the ENTER button.
The CH PRESET display, as illustrated, will appear on the TV screen.

4

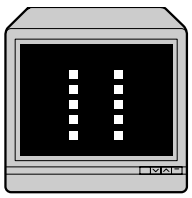


Press the ENTER button to select AUTO.
The display, as illustrated will appear on the TV screen and "Auto" will appear in the VCR display.
The VCR will start auto tuning, auto channel mapping, auto clock setting, and auto RF seek function. It takes about 3 minutes.
The following stations are stored in programme numbers 01 — 05 automatically.

01 BBC1
02 BBC2
03 ITV
04 CH4 (or S4C)
05 CH5

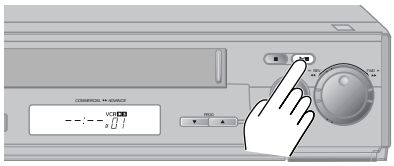
Note: If the station does not transmit a signal which identifies itself, the station name will not appear.

5



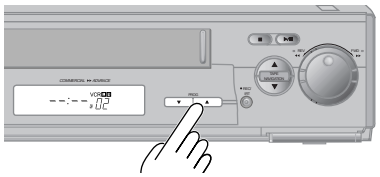
Tune your TV (consult your TV instruction manual).
The correct tuning position is when the picture is clear.
After this process is complete, the test pattern will appear on the TV screen, and the RF output channel will appear in the VCR display.

6



Press the PLAY/STILL button.
The test pattern will disappear and the VCR change to the operate mode.

7



Press the PROG (▲/▼) buttons to check the channels you can receive.

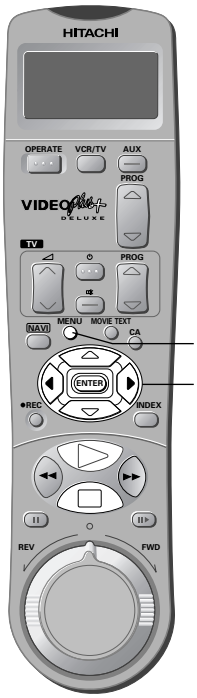
Note: If no channels have been set or a clear picture does not appear, check the aerial or scart connection.

Note: When the pre-tuning of a channel is completed, the current time will appear in the VCR display. This is because the auto clock setting function has operated and the VCR clock has been set automatically. (See page 19 for details.)

(PRE-TUNING OF BUILT-IN TV TUNER)

Deleting Unwanted Preset Channels

1



Press the MENU button. Press the ▶ cursor button to select the CH option, and then press the ENTER button.
The CH PRESET display, as illustrated, will appear on the TV screen.

2

Press the ▽ cursor button to select MANUAL, and then press the ENTER button.
The programme number, station name and channel number will appear in this display. This is indicated by an arrow on the left of the screen.

Note: If the station does not transmit a signal which identifies itself, the station name will not appear.

3

Press the play ▷ or stop □ button until an unwanted channel is found.
For example, press the stop □ button to select channel 42 (programme number 04).

4

Press the 0000 button.
The channel number changes to "– –", indicating that the channel has been deleted.

5

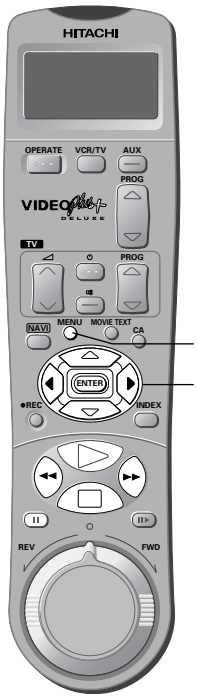
Repeat steps 3 and 4 until all unwanted channels have been erased.

6

After deleting them, **press the MENU button.**

Fine tuning of the picture of the received channel:

1



Press the MENU button. Press the ▶ cursor button to select the CH option, and then press the ENTER button.
The CH PRESET display, as illustrated, will appear on the TV screen.

2

Press the ▽ cursor button to select MANUAL, and then press the ENTER button.

3

Press the play ▷ or stop □ button to select the channel with a poor picture.
For example, press the stop □ button to select channel 42 (programme number 04).

4

Press the pause ⏸ button twice.

5

Press the fast forward ▶▶ or rewind ◀◀ button to adjust the picture so it appears clearly.

6

After fine tuning for the best picture, **press the pause ⏸ button** to store the channel.

7

Repeat steps 3 through 6 for other channels.

8

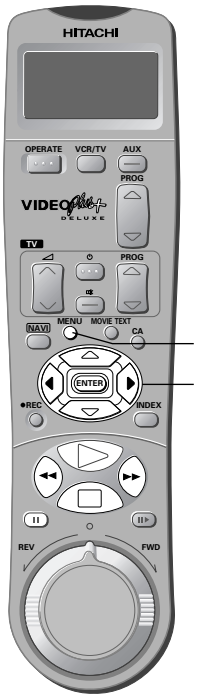
After fine tuning them, **press the MENU button.**

(PRE-TUNING OF BUILT-IN TV TUNER)

You may do this if you have accidently deleted a channel or particular channel was not found.

To change the channel manually

1



Press the MENU button. Press the ▶ cursor button to select the CH option, and then press the ENTER button.
The CH PRESET display, as illustrated, will appear on the TV screen.

2

Press the ▽ cursor button to select MANUAL, and then press the ENTER button.

3

Press the play ▷ or stop □ button to display the channel to be changed on the VCR display.
For example, press the stop □ button to select channel 42 (programme number 04).
This is indicated by an arrow on the left of the screen.

4

Press the pause ⏸ button, so the channel is selected. Then press two numbered button or fast forward ▶▶ or rewind ◀◀ button to change the channel.
For example: PROG 04...CH42 change to PROG 04...CH23.

5

At a channel that is broadcasting, a picture appears on the TV screen. Press pause ⏸ button to fine tune the channel and press pause ⏸ again to store the channel.

To change the programme number (To exchange the channel)

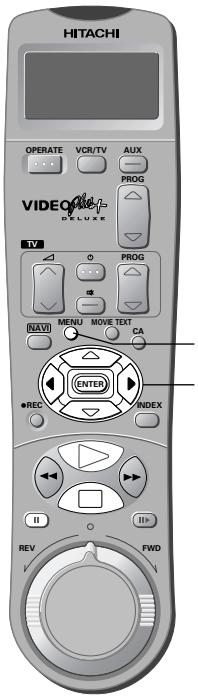
You can set your own programme number according to your wish after pre-tuning your VCR. For example, if you want to interchange programme number 03 to programme number 04 follow the procedures below:

Controls **TV screen**

1

Press the MENU button. Press the ▶ cursor button to select the CH option, and then press ENTER button.
The CH PRESET display, as illustrated, will appear on the TV screen.

2



MENU

Cursor

Press the cursor button to select MANUAL and then press the ENTER button.

3

Press the stop button to move the cursor to channel 42 (Programme number 04).
Press the 0 and then 3 number button to directly enter the programme number. Channel 42 will change position to programme number 03. (Cursor still in the programme number 04) Press the play button to programme number 03 to confirm the channel change.

Note: You will be unable to do programme number changeability, if channels are not installed for the programme number.
For example, to exchange PROG 01 ... CH_ _ with PROG 02 BBC2 CH33.

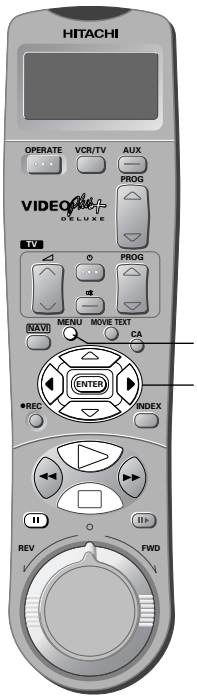
4

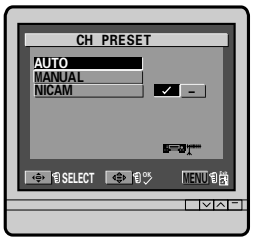
To end, **press the MENU button.**

(PRE-TUNING OF BUILT-IN TV TUNER)

To preset "Satellite or cable box" programme (Refer to page 7 for connection)

1





Press the MENU button. Press the ▶ cursor button to select the CH option, and then press the ENTER button.
The CH PRESET display, as illustrated, will appear on the TV screen.

2

Press the ▽ cursor button to select MANUAL, and then press the ENTER button.

3

Press the play ▷ or stop □ button to display a "Satellite/cable box" programme.

4

If the picture displayed is a "Satellite/cable box" programme, **press the pause ⏸ button.**

5

Press the play ▷ button to change the display from "DECODER (—)" to "DECODER (√)".
Note:
If the selected channel has been preset to satellite receiving channel, you will be unable to perform the above selection.

6

Press the pause ⏸ button twice to store the programme.
The DEC "—" display changes to "√", indicating that the channel has been stored.

7

To end, **press the MENU button.**

AUTO CLOCK SETTING USING PDC SIGNAL

Setting the clock using a PDC signal (Auto clock set)

This function engages when "AUTO clock √ (on)" is specified on the VCR MODE setting screen.
To release this function, specify "AUTO clock – (off)".

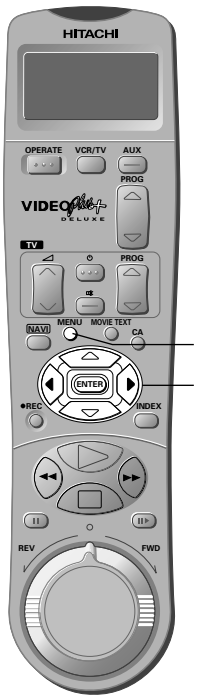
To switch auto clock setting between on and off

Controls **TV Screen**

1

Turn on the VCR and TV, and then tune the TV to the video programme number.

2



Press the MENU button. Press the ▶ cursor button to select MODE, and then press the ENTER button.

3

Press the ▽ cursor button to select AUTO ⏲.

4

Press the ◀ or ▶ cursor button to switch the auto clock setting function between √ (on) and — (off).

Notes:

- If the PDC signal being broadcast by a station which does not contain a time signal, the VCR clock cannot be set automatically by pre-tuning the VCR to the channel. In this case, use the procedure on page 20 to set the clock manually.
- The time which has been set automatically may drift from the correct time depending on the signal condition or the programme being broadcast. In this case, use the remote control handset to set the time on the VCR clock.
- If the time set in the remote control is transferred to the VCR and the VCR clock has already been set, the function to set the clock using a PDC signal is disabled automatically.

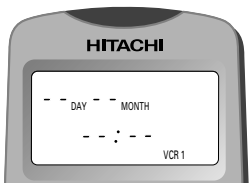
SETTING THE CLOCK MANUALLY

Things to know before starting

- While you are setting the clock, the display panel on the remote control handset will prompt you through the procedure.
- Always press "0" **before** a single-digit hour, minute, day, month or year.
- If you press the wrong digit during clock setting, press the CORRECT button repeatedly until the incorrect digit flashes then enter the correct digit.
- You have about one minute to complete each step in the procedure. If you do not proceed to the next step within this time, all entries are erased and you must start again.
- The clock must be set to the correct time before programming the timer for unattended recording or Instant Recording Timer (IRT).

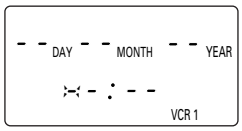
Controls **Remote Display**

1



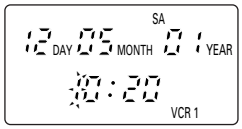
Be sure to check that "VCR1" or "VCR2" is displayed.
This VCR is designed so it can be controlled when either "VCR1" or "VCR2" is selected.
See "REMOTE" on page 60.

2



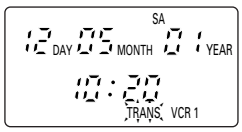
Press the CLOCK button.

3



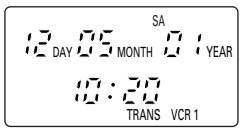
Set the time and date.
For example, press 1 0 2 0 for 10:20, and then 1 2 0 5 0 1 for the 12th of May, 2001.
(0:00 for midnight, 12:00 for noon)
The day of week appears automatically.

4



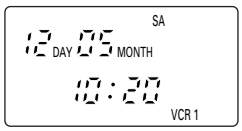
After setting the date, **press the CLOCK button.**
The clock starts counting and the blinking "TRANS" appears.

5



Press the TRANS button while aiming the remote control handset at the receiver on the VCR.
The transferred time appears on the display of the VCR.
"TRANS" now stop blinking in the display.

6

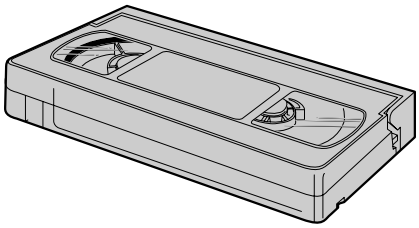


Press the CLOCK button.
The remote control handset and the VCR clock have now been set up.

Notes:

- If you wish to correct the time in the VCR display after transmitting the information to the VCR, follow the steps above correcting the information and transmit it again.
- If the power is interrupted for more than 30 minutes, "– –:– –" will appear in the VCR display. The time and date will need to be reset.

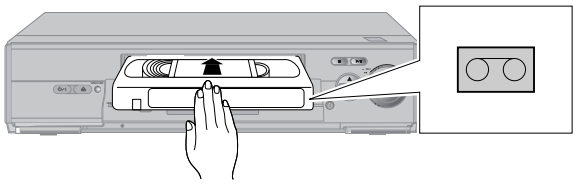
CASSETTE TAPES



Only use video cassettes with VHS mark in this VCR.

Insertion

1

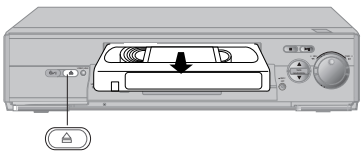


Push the cassette through the door until the VCR mechanism pulls it into the compartment.

The VCR automatically turns on and the indicator ⊡ turns on when the cassette is in place.

Removal

1



Press the eject (⏏) button on the VCR. The cassette will come partially out of the compartment so you can pull it out.

- The indicator ⊡ turns off when the cassette is ejected.
- The cassette can be ejected with operate on or off.

Remember that:

—The VCR automatically enters the playback mode when a cassette without its safety tab is inserted.

—If you have inserted a cassette without the safety tab and press the REC button, "TAb" will flash in the VCR display for several seconds, and the cassette will be ejected automatically.

—Be sure to check the safety tab before inserting a cassette for the above reasons.

Type of video cassette

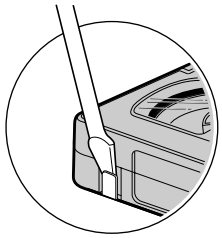
The table below shows the recording time of different cassettes.

TYPE	SPEED SELECT SWITCH	
	SP	LP
E-30	30 minutes	60 minutes
E-60	60 minutes	120 minutes
E-120	120 minutes	240 minutes
E-180	180 minutes	360 minutes
E-240	240 minutes	480 minutes

- Press the SP/LP button on the remote control handset to select the recording speed before recording. It is set to the correct speed automatically during play, so it is not necessary to change it over.
- It is recommended to record in SP mode for higher quality picture and sound.

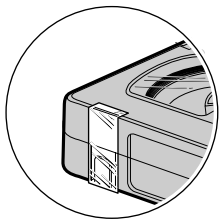
To avoid erasing a recording

Break off the safety tab using a screwdriver or similar tool.



To re-record on a cassette which its safety tab has been removed

Cover the hole with cellophane tape.



Section-2 Basic Operations

Playback Pages 23 — 26

This tells you how to playback a tape and how to view a scene at variable tape speed.
Jog Dial and Shuttle Ring/Knob; allow you to view a tape at variable tape speed easily.

Recording TV Programmes Pages 27 — 29

This tells you how to record a TV programme while viewing the same TV programme or while viewing another TV programme.

Tape Analyzer Page 30

This tells you how to use ATRS function to detect type of tape used during recording.

Instant Recording Timer (IRT) Page 31

This tells you how to use the IRT feature.
The IRT feature allows you to quickly set-up the VCR to record a TV programme for a specified period.

Timer Recording Pages 32 — 39

The built-in 24-hour timer permits the unattended recording of up to 12 preselected programmes within a period of 1 year, including daily and weekly programmes.
In additional to the conventional timer programming procedure, this VCR incorporates a new programming procedure called VIDEO Plus+ programming system.

VIDEO LINK — Recording Using Satellite Decoder or TV Page 40

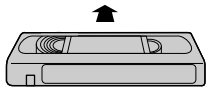
"VIDEO LINK" function allows you to easily prepare the VCR to record signals from a satellite/cable decoder or TV.

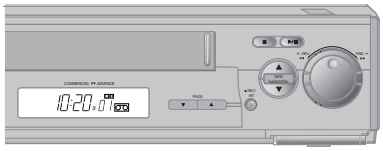
PLAYBACK

Start point: Turn on the TV set and select the video programme number.

Controls **VCR Display**

1

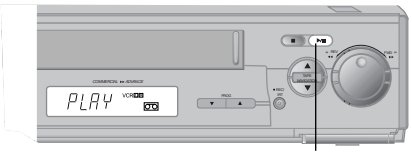




Insert a cassette.

Note: When a cassette (with its safety tab snapped off) is loaded, playback starts automatically.

2



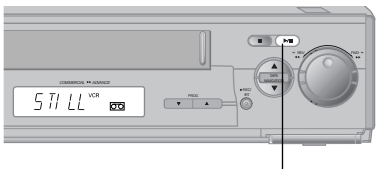
PLAY/STILL

Press the play ▷ button on the remote control handset or play/still (▶/II) button on the VCR. Press the VCR/TV button on the remote control. The letter "VCR" will appear in the display. This is necessary for viewing the picture through the scart connection.

Note: If you press the play ▷ button without a cassette inserted, "TAPE" will flash in the VCR display to warn you.

During playback you can use the following features.

Pause playback



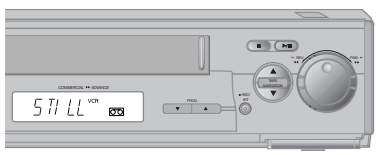
PLAY/STILL

Press the pause (II) button on the remote control handset or play/still (▶/II) button on the VCR to stop the picture on the screen during playback.

Press the button again to reset to normal playback. If the screen "jitters" vertically, press the PROG (▲ or ▼) buttons on the VCR for tracking adjustment.

VCR/TV

Shuttle knob



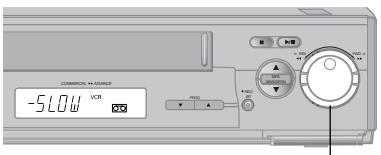
Frame advance

Press the pause (II) button to still the picture.

Press the frame advance on the remote control (II▶) button to advance the picture to the next frame.

Pressing and holding the frame advance (II▶) button advances the frames continuously.

Press play ▷ or pause (II) button to reset to normal playback.



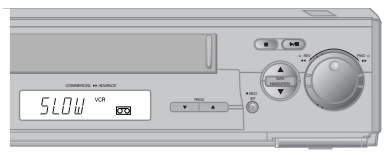
Shuttle ring

Slow function

To engage slow, use the Shuttle knob on the remote control or shuttle ring on the VCR.

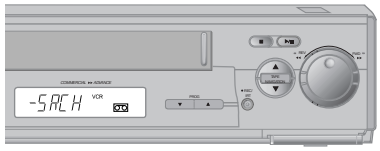
Turn the Shuttle during playback to the right for forward slow or to the left for reverse slow. The tape will be played back at slow speed.

Release the Shuttle knob/ring to reset to normal playback.



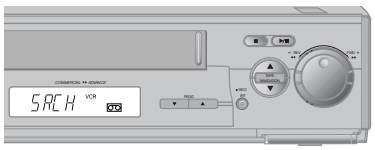
Note: When the slow playback mode continues for about 1 minute, the VCR switches to stop mode automatically to prevent damage to the tape.

Controls **VCR Display**



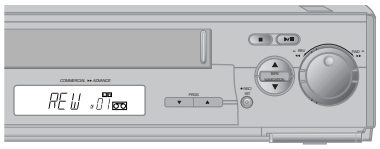
Visual search

Press either the rewind ◄◄ or fast forward ►► button during playback.
Pictures can be viewed at high speed in either the forward or reverse direction. Press the button again (or press the play ▷ button) to return to normal speed playback.



Notes:

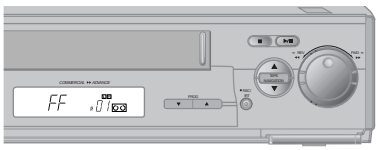
- The playback picture will have some horizontal noise bars during visual search.
- These noise bars may be much more noticeable with tapes recorded in LP mode.
- Visual search is also possible using shuttle ring/knob (see page 26).



Rewinding a tape during stop mode.

Press the rewind ◄◄ button.

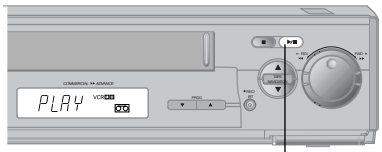
Note: When a cassette has not been inserted, "TAPE" will flash in the VCR display to warn you.



Fast forwarding a tape during stop mode.

Press the fast forward ►► button.

Note: When a cassette has not been inserted, "TAPE" will flash in the VCR display to warn you.



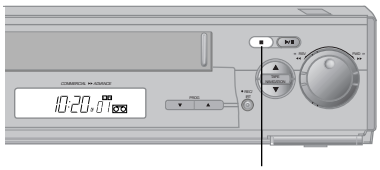
PLAY/STILL

Playing an NTSC tape:
If your TV has a PAL60 system mode, you can play an NTSC tape on the TV.
Insert an NTSC tape into the VCR and press the play ▷ button.

Note:

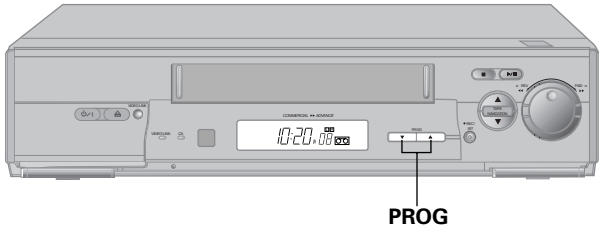
- Although this VCR can also play NTSC-SP and EP tapes, noise may enter the Hi-Fi sound with NTSC-EP tapes. In this case, press the CH1/2 button to switch off the L and R indicators so the linear sound mode is engaged.
- OSD characters will not appear during NTSC playback or search mode.

3



STOP

Press the stop □ button to stop a tape.



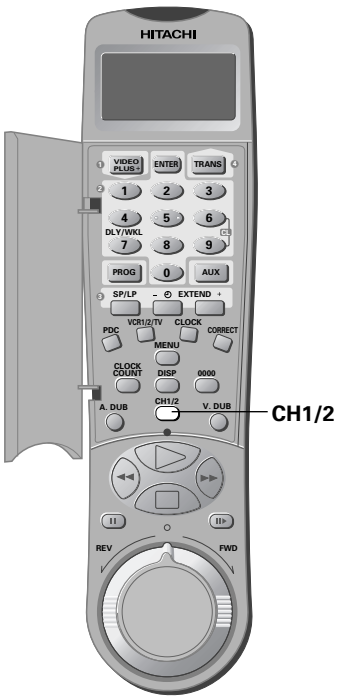
Notes:

- If there is a noise bar in the picture during still or slow motion play, press the PROG button (▲ or ▼) on the VCR to adjust tracking and reduce noise.
- To prevent tape damage, the VCR will switch from still/slow mode to stop mode after about 1 minute.

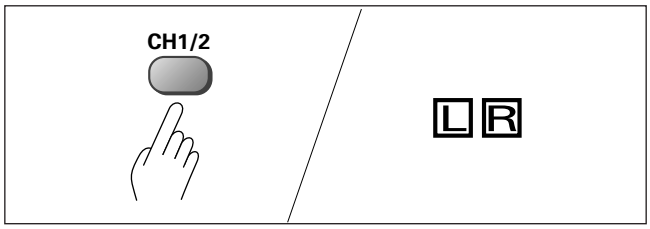
Auto Tracking

When you insert a tape that has not been recorded by this VCR, auto tracking operates automatically. If you want to auto tracking again, press the play ▷ button on the remote control during playback.

- Auto tracking may not operate when a tape recorded on this VCR is inserted.
- Auto tracking may not operate correctly when the tape is scratched or the recorded condition is poor. In this case, press the PROG button (▲ or ▼) on the VCR to adjust tracking manually.



CH1/2 select button



■ When playing stereo or monaural tapes

Press the CH1/2 select button on the remote control handset so that both the L and R indicators on the front panel of the VCR light.

- When only the L (or R) indicator lights, only the left (or right) audio channel of the Hi-Fi track is heard.
- When both L and R indicators do not light, the sound on the mono audio track is heard.

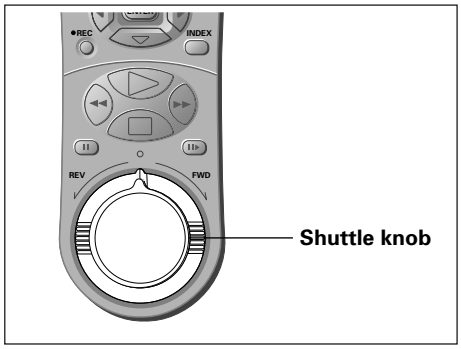
■ When playing back bilingual broadcasts

Select the required language by pressing the CH1/2 select button.

- When only the L indicator lights, the main language is heard.
- When only the R indicator lights, the sub language is heard.
- When both L and R indicators light, the main language and sub language are heard.
- When both L or R indicators do not light, the mono audio track is heard.

PLAYBACK USING JOG/SHUTTLE RING

Use of the jog/shuttle ring/knob allows many different kinds of playback – slow-motion play, normal play, forward search, reverse slow-motion play, reverse play and reverse search.



Note: If the shuttle ring/knob is operated in stop mode, the VCR enters the fast forward or rewind mode.

■ How to use the jog dial on the VCR

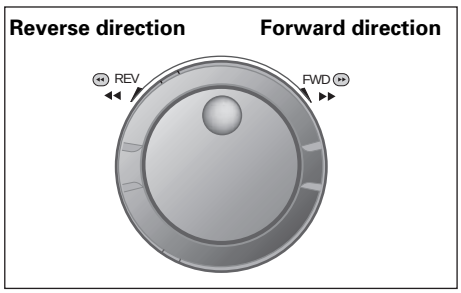
Turn the jog dial during play or still play for forward or reverse frame advance.

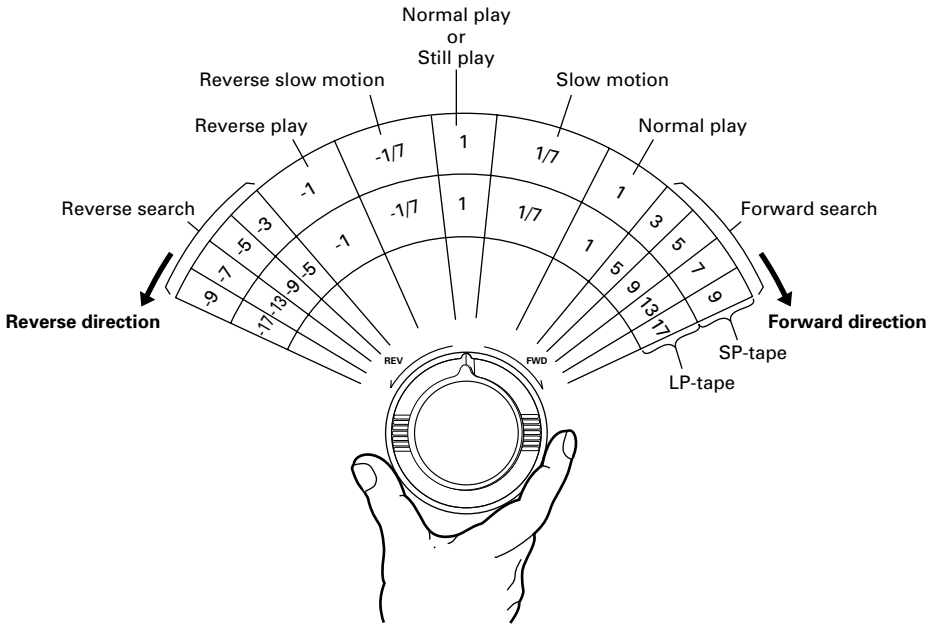
- Every time the jog dial is brought to the point where a slight click is felt, the picture will move by one frame.
- Releasing the jog dial returns to still play.

■ How to use the shuttle ring/knob

If the shuttle ring/knob is operated during normal or still playback, turning the ring/knob to the positions indicated gives the special effects shown.

- Release the shuttle ring/knob for normal play or still play.
- If the shuttle ring/knob is operated during still play and is then released, the VCR re-enters the still play mode. If the VCR is left for more than 30 seconds to one minute after still play is restored from reverse play, reverse slow-motion play or slow-motion play, the VCR will enter the stop mode automatically to prevent damage to the tape.





- Numbers indicate tape speeds with normal play as 1.

Notes:

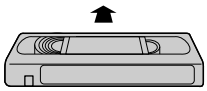
- Operation of shuttle ring on the VCR is identical to shuttle knob on the remote control handset but the speed is slightly different.
- The picture may contain noise, streaking or other distortion when it changes.
- If noise bars appear on the TV screen during slow/still mode, press the PROG button (▲ or ▼) on the VCR to adjust tracking.

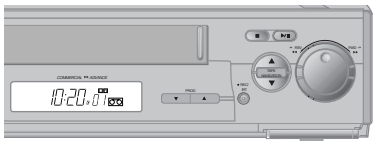
RECORDING TV PROGRAMMES

Controls **VCR Display**

Start point: Turn on the TV set and select the video programme number.

1





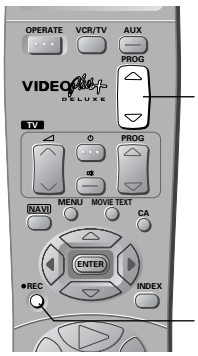
Insert a cassette.

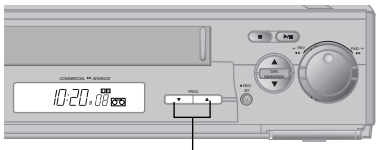
Note: Be sure to check that the safety tab is not missing. If it is removed, the VCR is set to playback mode automatically.

If you insert a blank cassette (or a cassette recorded without Tape Navigation data), the TAPE NAVIGATION button on the VCR will flash and " Auto " will flash in the VCR display for about 10 seconds.

- If you are using an E-30, E-60, E-120 or E-180 cassette, ignore this display.
- If you are using an E-240, E-260 or E-300 cassette, press the 0000 button on the remote control handset until the type of tape you use appears in the VCR display. Refer to "Tape Navigation Function" on page 42.
- While the TAPE NAVIGATION button is flashing, recording cannot be done even if the REC or REC/IRT button is pressed.

2





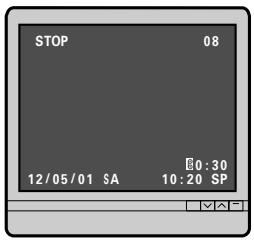
Select the programme to be recorded by pressing the PROG buttons or any two numbered buttons.

See the "NICAM" display and the table on page 29 for NICAM.

Note:

If the selected programme have PDC signal, the "PDC" character will appear on the TV screen. (Please refer to page 86)

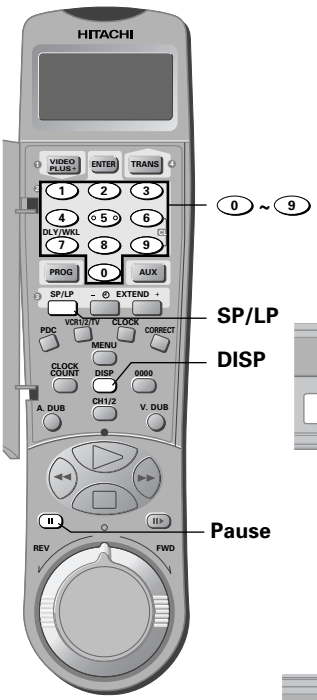
3



Press the DISP button.

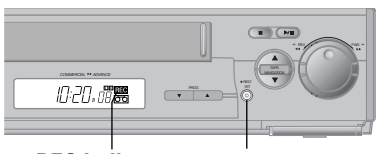
The on-screen display will appear on the TV screen.

4



Press the SP/LP button to select the recording speed.

5



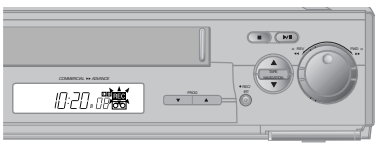
Press the REC or REC/IRT button.

Now recording will start.

Notes:

- When a cassette without safety tab is inserted, " Tab " will flash in the VCR display for several seconds, and the cassette will be ejected automatically.
- If you press the REC or REC/IRT button without a cassette inserted, " TAPE " will flash in the VCR display to warn you.

6



If you want to avoid recording unwanted material, **press the pause ⏸ button.** Press the button again to continue recording.

To prevent tape damage, the VCR will automatically switch from record/pause mode to stop mode after about 5 minutes.

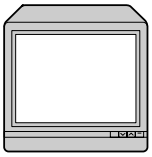
Controls **VCR display**

7

To view a programme while recording it

You can view a programme while recording it by selecting the video programme number on your TV.

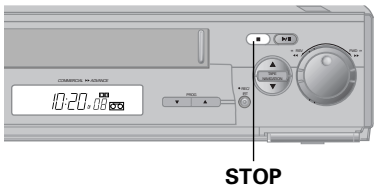
8



To record one programme while viewing another

You can record one programme while viewing another by selecting the programme you want to view on your TV. The recorded programme can be viewed later at your convenience.

9



After the recording has been made, **press the stop ☐ on the remote control or stop (■) button on the VCR .**

Recording a stereo broadcast

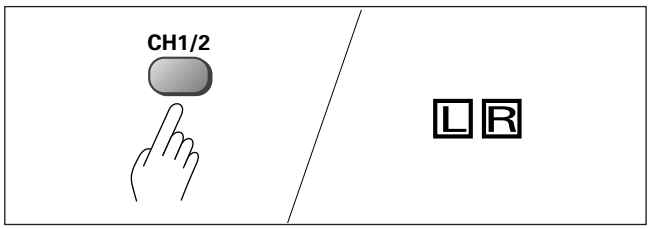
The basic procedure for recording a stereo broadcast is the same as normal recording. The STEREO indicator will appear on the TV screen for a few seconds if a programme being broadcast in stereo is selected.

Recording a bilingual broadcast

The basic procedure for recording a bilingual programme is the same as normal recording.

The M1M2 (bilingual) indicator will appear on the TV screen if a station broadcasting a bilingual programme is selected.

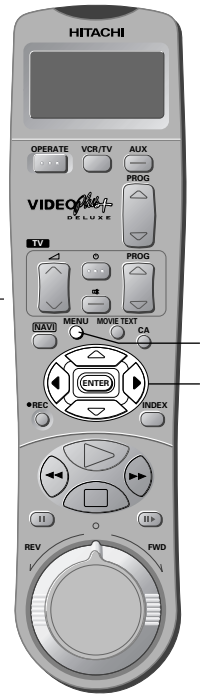
Note: You can monitor the desired audio channel with the CH1/2 select button on the remote control handset. Press the CH1/2 select button until you hear the desired audio channel. The selected audio channel is shown on the VCR. During bilingual broadcasts, L is the main language and R is the sub language.



NICAM "ON/OFF" selection

Controls **TV Screen**

1



Press the MENU button.

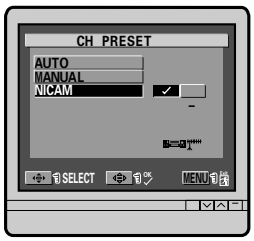
Press the ▶ cursor button to select the CH option, and the press the ENTER button.

The CH PRESET display, as illustrated on the TV screen.

2

MENU

Cursor



Press the ▽cursor button to select NICAM. Press the ◀ or ▶ cursor button to change the NICAM setting and then press the MENU button.

(√) : Usually select (√) . The VCR discriminates whether the broadcast is NICAM or not automatically.

(—): Select (—) when you do not want to receive NICAM broadcast.

Please refer table below.

Audio to be recorded according to the NICAM broadcast

Type of broadcasting audio	Display on TV screen	NICAM (√) or (—) display	Audio to be recorded		
			Mono audio track	Hi-Fi audio track	
				L	R
Standard		Either	Standard	Standard	Standard
Standard + NICAM mono	M1	√ (ON)	Standard	NICAM mono	NICAM mono
		— (OFF)	Standard	Standard	Standard
Standard + NICAM stereo	STEREO	√ (ON)	Standard	NICAM L	NICAM R
		— (OFF)	Standard	Standard	Standard
Standard + NICAM bilingual	M1 M2	√ (ON)	Standard	NICAM main	NICAM sub
		— (OFF)	Standard	Standard	Standard

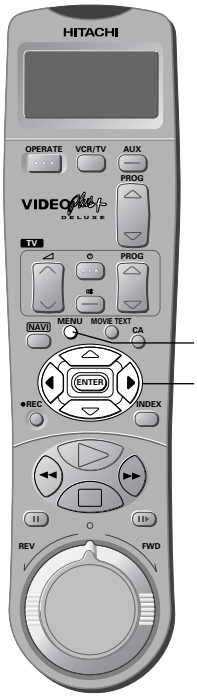
TAPE ANALYZER

Tape Analyzer (ATRS) automatically detect the type of tape used during recording.
ATRS will operate automatically if a new tape or a tape which first time used in this VCR is used for normal recording or timer recording.

Tape Analyzer function "on" / "off"

Controls **TV Screen**

1



Press the MENU button. Press ▶ cursor button to select MODE and press the ENTER button.

The menu, as illustrated will appear on the TV screen.

2

MENU

Cursor

Press the △ or ▽ cursor button to select TAPE ANALYZER. Then set the TAPE ANALYZER mode in the menu to ✓ (on).

Note:

- If you have specified Tape Analyzer – (off), ATRS will not operate.
- If you have specified Tape Navi – (off), the ATRS will function but data will not be stored.

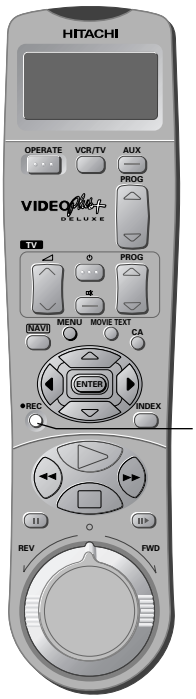
3

Press MENU to exit.

Tape Analyzer function during recording

Controls **TV Screen**

1



Insert a new tape or a tape that has not been used for recording in this VCR. The VCR will check and recognise the type of tape used. Press the REC button.

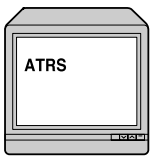
The OSD will display blinking message **EXECUTING** for a few seconds.

Then, recording will start and ATRS will appear on the left of the TV screen for 8 seconds.

During execute the Tape Analyzer, sound will disappear for a moment.

2

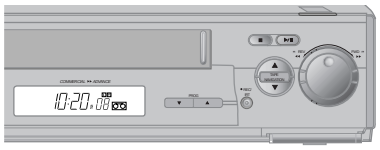
REC



INSTANT RECORDING TIMER (IRT)

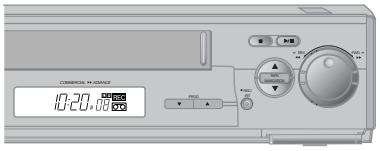
Controls **VCR Display**

1



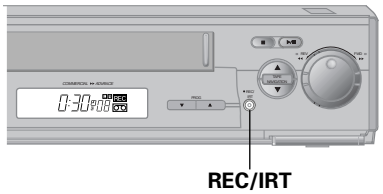
Ensure the time is correct in the VCR display.

2



Start recording as described on page 27.

3



To start IRT recording, **press the REC/IRT button again.**

The recording time is then indicated in the display. Press the REC/IRT button until you select the required recording time; the time changes in hours and minutes in the following sequence; 0:15, 0:30, 0:45, 1:00, 1:15, 1:30, 1:45, 2:00, 3:00, 4:00 5:00, 6:00.

During recording, the remaining time is displayed.

At the end of the recording time, when the display shows 0:00, the VCR will turn off automatically.

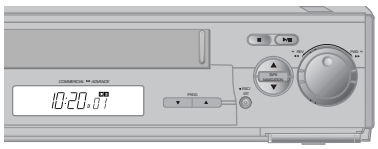
To stop recording during IRT; press the stop ▢ button on the VCR or on the remote control.

TIMER RECORDING

Your TV does not have to be on during recording because the VCR records TV programmes without the aid of your TV. It is only used for monitoring.

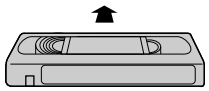
Controls **VCR Display**

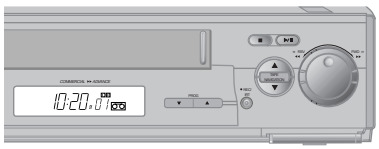
1



Make sure that the clock shows the present time correctly.

2



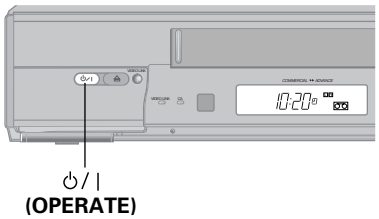


Insert a cassette.
Be sure to check that the record safety tab is not missing. If the safety tab is missing, recording will not begin.

3

Programme the timer.
See pages 33 to 39 for details.

4



Press the OPERATE button to turn off the VCR.

To interrupt a recording after it starts, press the OPERATE button and then the stop button (either on the remote control or on the VCR) within 10 seconds.

If a cassette with its safety tab snapped off is inserted, it will be ejected automatically and the indicator 📼 in the VCR display will start flashing when the VCR is turned off. In this case, insert a cassette with its safety tab in place or cover the hole with cellophane tape.

Also, if a cassette is not loaded in the VCR, the indicator 📼 starts flashing.

Programming the timer

This VCR incorporates two programming procedures for timer recording.
One is conventional, and the TV programme No., start time, stop time, recording date, etc., must be input, and the other is called VIDEO Plus+ programming system and up to 9 digits must be input.

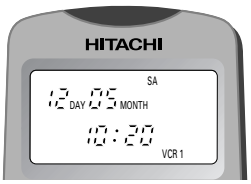
Programming the timer using VIDEO Plus+ programming system

Things to know before starting programming

- To find the PlusCode programming number, look in the TV section of most newspapers or TV guide magazines.
- Check that the time and date are correct.
- You have about one minute to complete each step of the procedure. If you do not proceed to the next step within this time, all entries are erased and you must start again.

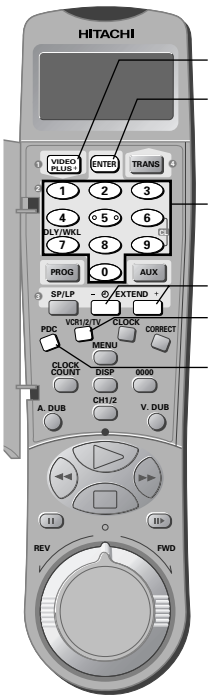
Controls **Remote Display**

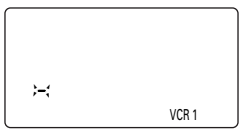
1



Be sure to check that "VCR1" or "VCR2" is displayed.
This VCR is designed so it can be controlled when either "VCR1" or "VCR2" is selected.
See "REMOTE" on page 60.

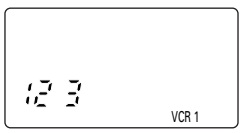
2





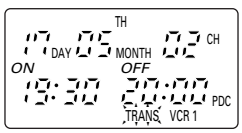
Press the VIDEO PLUS+ button.

3



Enter the PlusCode programming number from the TV guide or newspaper etc. for the programme you want to record, by using the number buttons.

4



After entering the PlusCode programming number, **press the ENTER button.**

The programmed details appear.

If you wish to change the programme allocations, see the additional operations page 62.

If you wish to change the start (ON) time or end (OFF) time, press the ⏲ EXTEND button – (for start time) or + (for end time). The start (ON) time can be brought forward by up to 10 minutes in one minute intervals and the end (OFF) time can be delayed by up to 60 minutes in 10 minutes intervals.

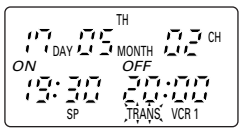
Notes:

- Use of PlusCode programming numbers.
  PlusCode programming numbers only record programmes at the times shown in the TV guide.
  The VCR timer will not follow the TV programme if the time is changed for any reason (e.g. delayed due to previous programme).
- If you intend to use the PDC function, press the PDC button to switch on the PDC function.

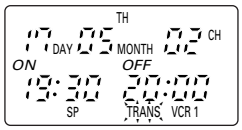
(TIMER RECORDING)

Controls **Remote Display**

5

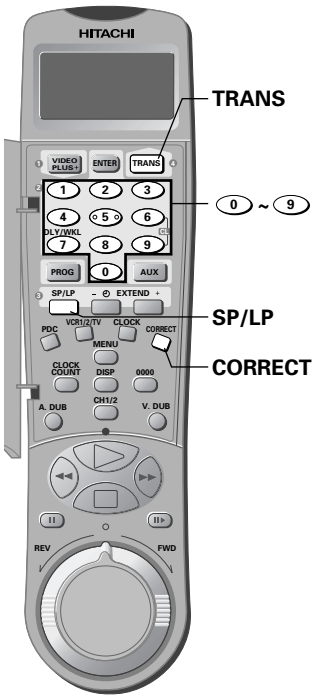


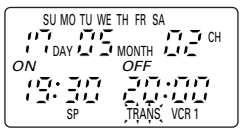
Press the SP/LP button to select the recording speed (SP, LP, or no display).
Note: If you select no display, the VCR will record at the speed displayed by the on-screen display. Check the recording speed after programming the timer.



If you are programming the timer for one time recording only, skip step 6 and go straight to step 7.

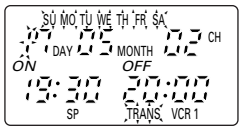
6



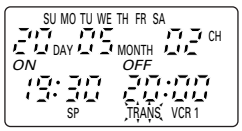


To record at the same time every day of the week

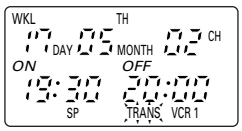
Press the 7 (DLY/WKL) button once to display all days.



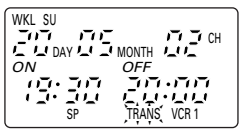
If you want to change the first recording date, press the CORRECT button repeatedly until the first digit of day starts flashing. (If the flashing cursor passes the first digit of day, press the CORRECT button repeatedly until the flashing cursor reaches the first digit of day.)
Then select the first recording date using the number buttons.



To record on a specified day at the same time each week

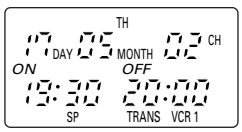


1. Press the 7 (DLY/WKL) button twice. The "WKL" appears.



2. Press the 7 (DLY/WKL) button repeatedly until the desired day of the week you want to record appears.

7

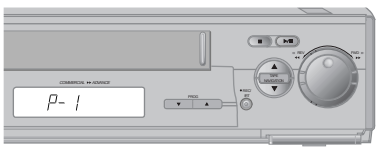


Press the TRANS button to transfer the programmed details to the VCR.

The VCR may be on or off when transferring the programmed details.

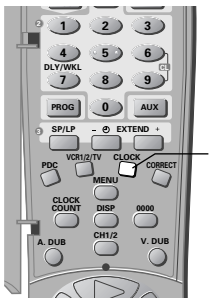
The VCR shows the timer programme number for a few seconds.

If the TV is turned on and tuned to the video programme number, the programmed details appear on the TV screen for a few seconds.



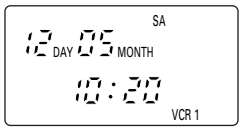
Controls **Remote Display**

8



Press the CLOCK button to switch the display panel back to the clock/calendar display.

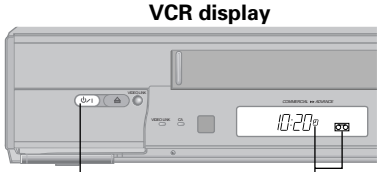
9



If you want to programme another event, repeat steps 2 to 8.

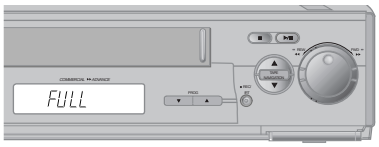
10

VCR display



(OPERATE)

To activate the VCR timer and make a recording at the preselected time, be sure to **press the OPERATE button to turn off the VCR**.
Of course a cassette which has an intact safety tab must be inserted.



Operating notes:

- If you have entered a wrong number in step 3, "Error" will appear on the remote display when the ENTER button is pressed. In this case, enter the correct number again.
- If the TRANS button is pressed when all the programme numbers that the VCR can store are occupied, "FULL" will appear in the VCR display and the information transferred will be rejected. In this case, clear unnecessary programme numbers from the VCR memory.
- See page 39 for recalling and clearing the programming from the VCR memory and for programme priority.
- If the TRANS button is pressed when the VCR clock has not been set, "––:––" will flash in the VCR display. Reset the VCR clock.
- If your timer programme has a TV programme channel number that you have not preset in the VCR, "Err" will appear in the VCR display when you try to transfer this programme to the VCR. In this case, correct the channel, then transfer the data to the VCR again.

(TIMER RECORDING)

Programming the timer without using VIDEO Plus+ programming system

Things to know before starting programming

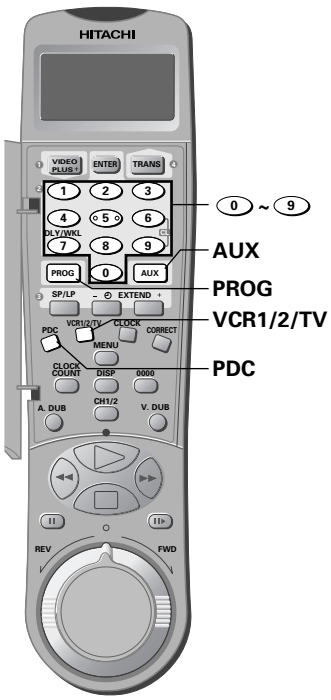
- While you are programming the timer, the display panel on the handset will prompt you through the procedure.
- Always press the 0 button before a single-digit channel, hour and minute etc.
- You have about one minute to complete each step of the procedure. If you do not proceed to the next step within this time, all entries are erased and you must start again.
- You can correct an error in the programme any time before the last step by pressing the CORRECT button repeatedly until the digit to be corrected flashes and then enter the correct digit.
- Check that the time and date are correct.

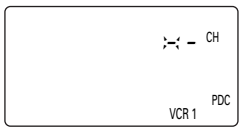
Controls **Remote Display**

1

Be sure to check that "VCR1" or "VCR2" is displayed.
This VCR is designed so it can be controlled when either "VCR1" or "VCR2" is selected.
See "REMOTE" on page 60.

2

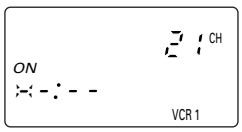




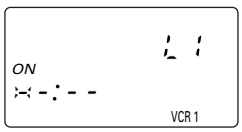
Press the PROG button.

Note: If you intend to use the PDC function, press the PDC button to switch on the PDC function.

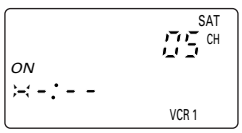
3



Select the TV programme number to be recorded.
For example, press 21 for TV station 21.

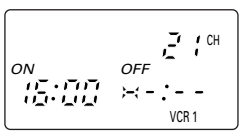


To record video and audio signals from external equipment via the Scart socket on the back of the VCR, press the AUX button so that "L1" is displayed in the display panel in place of a programme number.
To record via the DECODER socket on the back of the VCR, press the AUX button again to display "L2".



To record a satellite programme, press the AUX button twice to display "SAT". Then enter the programme number of the satellite receiver.

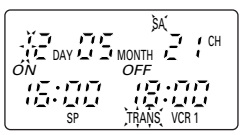
4



Select the start time.
For example, press 1600 for 16:00 (4:00 p.m.).

0:00 for midnight 12:00 for noon

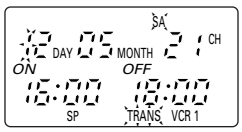
5



Select the stop time.
For example, press 1800 for 18:00 (6:00 p.m.).

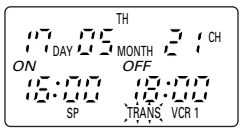
Controls **Remote Display**

6



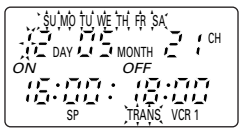
Press the SP/LP button to select the recording speed (SP, LP or no display).
Note: If you select no display, the VCR will record at the speed displayed by the on-screen display. Check the recording speed after programming the timer.

7

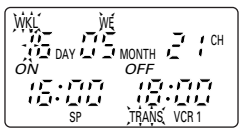


Select the date for recording.

To record on a single day up to one year ahead
For example, press 1705 to begin recording on the 17th of May.

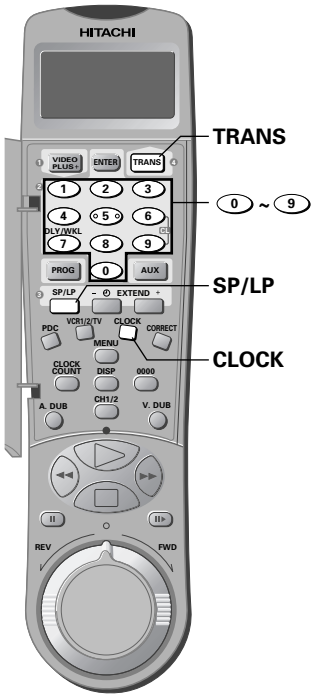


To record at the same time every day of the week
Select the first recording date using the number buttons. **Then press the (7) (DLY/WKL) button once** to display all days.

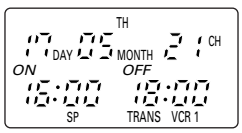


To record on a specified day at the same time each week

Press the (7) (DLY/WKL) button repeatedly until the desired day of the week you want to record appears.



8

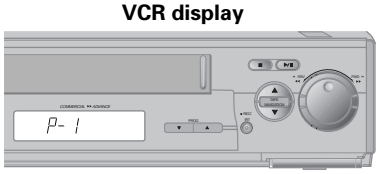


Now, programming has been completed to record one event.

Press the TRANS button while aiming the handset at the receiver of the VCR.

The VCR may be on or off when transferring the programmed details.

VCR display



The VCR shows the timer programme number for a few seconds.

TV Screen

If the TV is turned on and tuned to the video programme number, the programmed details appear on the TV screen.

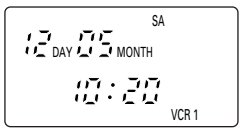
9

Press the MENU button to switch off the on-screen display.

(TIMER RECORDING)

Controls

10

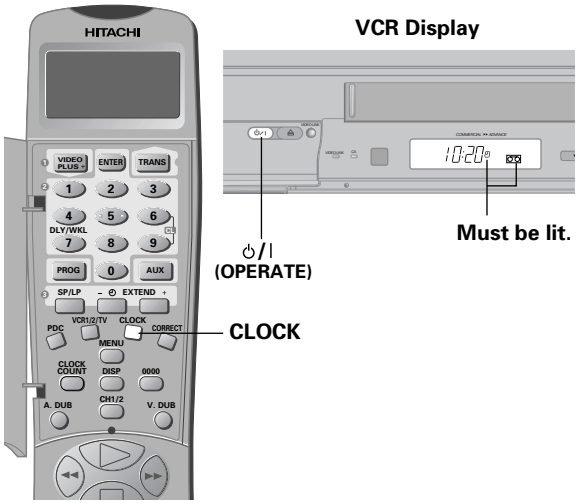


Press the CLOCK button to switch the display panel on the handset back to the clock/calendar display.

11

If you want to programme other programmes, repeat steps 2 to 9.

12



To activate the VCR timer and make a recording at the preselected time, be sure to **press the OPERATE button to turn off the VCR**. Of course a cassette which has an intact safety tab must be inserted.

Operating notes:

- If your timer programme has a TV programme channel number that you have not preset in the VCR, "Err " will appear in the VCR display when you try to transfer this programme to the VCR. In this case, correct the channel, then transfer the data to the VCR again.
- If the TRANS button is pressed when all the programme numbers that the VCR can store are occupied, "FULL" will appear in the VCR display and the information transferred will be rejected. In this case, clear unnecessary programme numbers from the VCR memory.

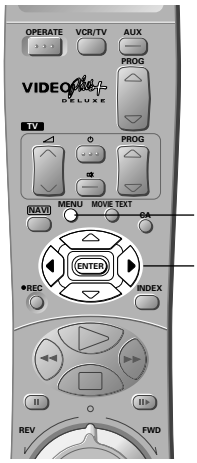
Recalling and clearing programmes from the VCR memory

Controls **TV screen**

1

Turn on the VCR and TV.
Be sure that the TV is set to the video programme number.

2



Press the MENU button.
The OSD menu appears on the TV screen.

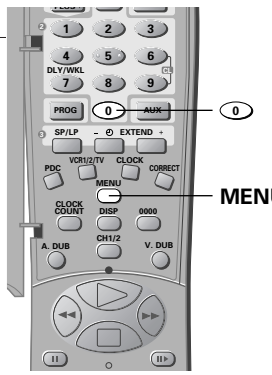
3

Press one of the cursor buttons to select REVIEW, and then press the ENTER button.

The TV screen will display the information you entered.

Press the cursor ⌃ or ⌄ to view the next programme information immediately.

4



To clear a programme, **press the 0 button** when the programme information you want to clear is displayed.
One event's timer programme data is erased from the VCR memory when the timer recording is finished, but daily and weekly programmes remain in the VCR memory even after the timer recording is finished.

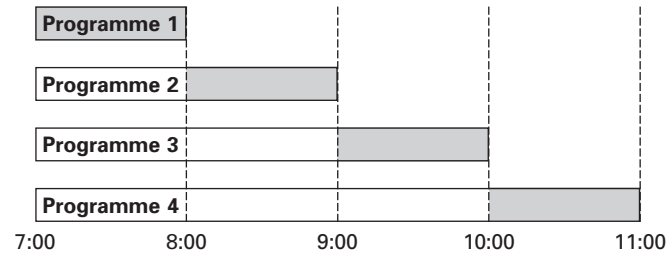
- A programme without PDC signal will be deleted after it has been recorded.
  A programme with PDC signal will be automatically deleted after 4:00 am the next morning.

5

When you finish reviewing the programmes, **press the MENU button** to switch off the on-screen display.

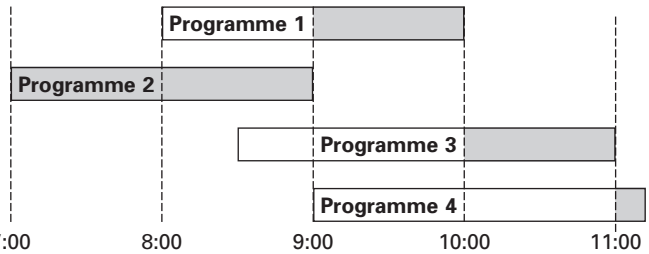
Programme priority

Example 1: When the programme start time is the same for more than one programme on the same day, they are recorded in the order of Programme 1, 2, 3 .... 12.



7:00 — 8:00 Programme 1
8:00 — 9:00 Programme 2
9:00 — 10:00 Programme 3
10:00 — 11:00 Programme 4

Example 2: When the programmes overlap, the earlier programme has priority.



7:00 — 9:00 Programme 2
9:00 — 10:00 Programme 1
10:00 — 11:00 Programme 3
11:00 — Programme 4

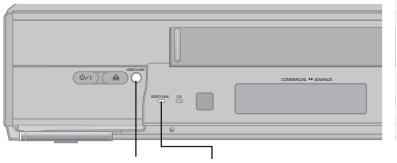
The actual programme recorded and the sequence is as shown in the shaded part of the diagram.

VIDEO LINK-RECORDING USING SATELLITE DECODER OR TV

"VIDEO LINK" function allows you to easily prepare the VCR to record signals from a satellite/cable decoder or TV, without setting the timer programme. This avoids the necessity of doing timer programming twice. (For the decoder and the VCR).

Controls **VCR's Display**

1



Connect your decoder to L2 (the blue socket behind the VCR as shown in page 7). Then set the VIDEO LINK mode in the menu to L2. To record video and audio from TV select L1. See page 59.

2

For Video Link recording using satellite decoder, set the timer programme on the satellite decoder according to proper procedure of that decoder.

3

Insert a cassette with safety tab intact. Turn the VCR to OPERATE off mode, then press and hold the Video Link button on the VCR for more than 2 seconds. The Video Link indicator will lights on.

4

At the programmed start-time, the decoder will activate your VCR to start recording. Subsequently, the VIDEO LINK recording will automatically stop if:

a) No signal received by the VCR for more than 1 second.
b) When tape ended, the tape will be ejected and the VCR goes to OPERATE off mode.

Notes:

If the recording has already started, to interrupt or to stop the recording, you can do one of the following:

a) Press and hold VIDEO LINK button for more than 2 seconds.
b) Press the OPERATE button followed by STOP button within 10 seconds.

To cancel the VIDEO LINK mode setting, you can do one of the following:

a) Press the VIDEO LINK button for more than 2 seconds.
b) Eject the tape.

Notes:

- **During "VIDEO LINK" mode is set to L2 and if you turn on the satellite decoder, the VCR will start recording.**
- **During "VIDEO LINK" mode is set to L1 and if you turn on the TV, the VCR will start recording.**
- **VIDEO LINK function will not operate when timer programme with PDC was stored.**
- **VIDEO LINK function will be cancelled when a timer programme with PDC is set.**

Section-3 Additional Operations

Tape Navigation Pages 42 — 48

Tape Navigation allows you to automatically locate a programme you want to view, and also to list on the TV screen the recorded contents of every tape you have recorded on this VCR.

Navi Lock Page 49

Navi Lock function prevent accidently deleting of important programmes.

Soap Recording Page 51

Soap Recording function is an easy way to set timer programming using Tape Navi data menu.

MOVIETEXT™ Page 53

MOVIETEXT™ shows the subtitle while viewing playback.

COMMERCIAL ▸▸ ADVANCE® Page 54

COMMERCIAL ▸▸ ADVANCE® allows the VCR to automatically or manually skip past detected commercial groups during replay of a recorded television broadcast.

Special Characteristics Pages 55 — 57

This explains the following additional convenient features:
Linear Time Counter; shows the actual elapsed time in hours, minutes, and seconds.
Automatic Rewind/Automatic Rewind Shut-Off; automatically rewinds the tape at its end and automatically shuts off at its beginning if the VCR is switched to standby mode.
Mode Lock; allows you to lock VCR mode to prevent accidental operation.
Tape remaining display; shows the remaining time on the TV screen.
Index; locates the desired programme on your tape.
Rental play; the VCR automatically starts playback when a cassette without the safety tab is inserted.

Menu Features Pages 58 — 61

Menu features show you various displays;
Programme Review, OSD feature on/off selection, VIDEO LINK L1/L2 selection, Tape Analyzer on/off selection, Remote code selection, Auto programme play on/off selection, Audio Mix on/off selection and Auto clock set on/off selection.

VIDEO Plus+® System Setup Page 62

Describes additional information for timer programming with VIDEO Plus+ system.

Editing Pages 63 — 70

Video Dubbing: allows you to simply and easily insert new video and Hi-Fi audio into exisiting tapes while the original audio on the linear audio track remains unchanged.
Audio Dubbing: allows you to simply and easily insert new audio recorded on the linear sound track, while the video and Hi-Fi audio remain unchanged.
Tape Dubbing; allows copying from another pre-recorded tape.
Synchro Edit; allows copying tape and controls the recording VCR to start and stop copying.

Satellite/Cable box Decoder Operation/Satellite Receiver Pages 71 — 77

This tells you how to connect a "Satellite/Cable Box" decoder or satellite receiver and record its programme.

Hi-Fi Sound Page 78

This tells you the format and specifications for Hi-Fi sound.

How to Operate Your TV by Using the Remote Control Handset Pages 79 — 80

The supplied remote control handset is designed to operate 15 different types of TV.You should programme the handset to match the remote codes of your TV.

TAPE NAVIGATION

Tape Navigation Function

Whenever the VCR records a programme, the Tape Navigation function stores specific information in the VCR memory. This information can be displayed on the TV screen in a directory and used to locate either a recorded programme you want to watch or the beginning of a non-recorded section of tape. The information also includes genre marks that you can use to designate each programme in the TAPE NAVI menu.

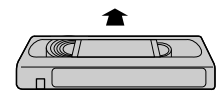
- Tape Navigation can operate only with tapes recorded on this VCR.
- This VCR has a memory capacity which can store about 200 programmes.
- Tape Navigation data will be memorised even during power failure, and the data will not be erased unless there is a memory defect.

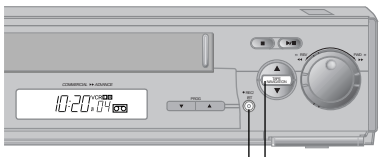
Controls **TV Screen**

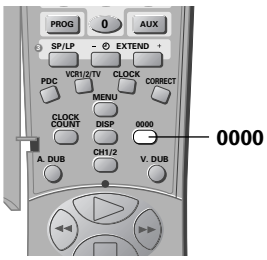
1

Tune your TV to the video programme number.

2



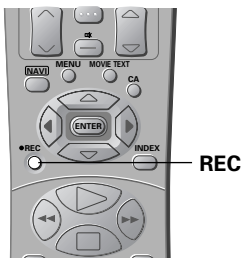


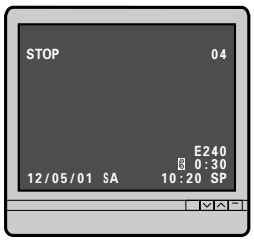


Insert a cassette into VCR.
The VCR will check the Tape Navigation signal. The TAPE NAVIGATION button will flash and " Auto " will flash in the VCR display for about 10 seconds.

- If a blank tape or a tape recorded on another VCR is inserted, " Auto " will appear in the VCR display. You will need to store the tape data in memory, to activate Tape Navigation during playback.

3





If you are using an E-30, E-60, E-120 or E-180 cassette, ignore the " Auto " display.
If you are using E-240, E-260 or E-300, press the 0000 button on remote control to select the type of tape you are going to use.
The type of tape you have selected will display on the TV screen.

Note: To properly store the tape in memory, you must select the type of tape you are going to use.

4

Press the REC button on the remote control or REC/IRT button on the VCR to start recording.

Notes:

- **Once you have selected the length of tape, it is not necessary to select it again for future recordings on the same tape.**
- **The VCR recognises only programmes with recorded times of more than 5 minutes.**
- **If you have selected an incorrect tape length, the correct data will not be stored in memory.**

Tape Navigation Operation

Controls **TV Screen**

1

Cassette with Tape Navigation data
Insert a cassette recorded on this VCR.
The VCR will check the Tape Navigation data. The TAPE NAVIGATION button will flash for a few seconds, and then change to steady lighting if the VCR has recognised the tape.

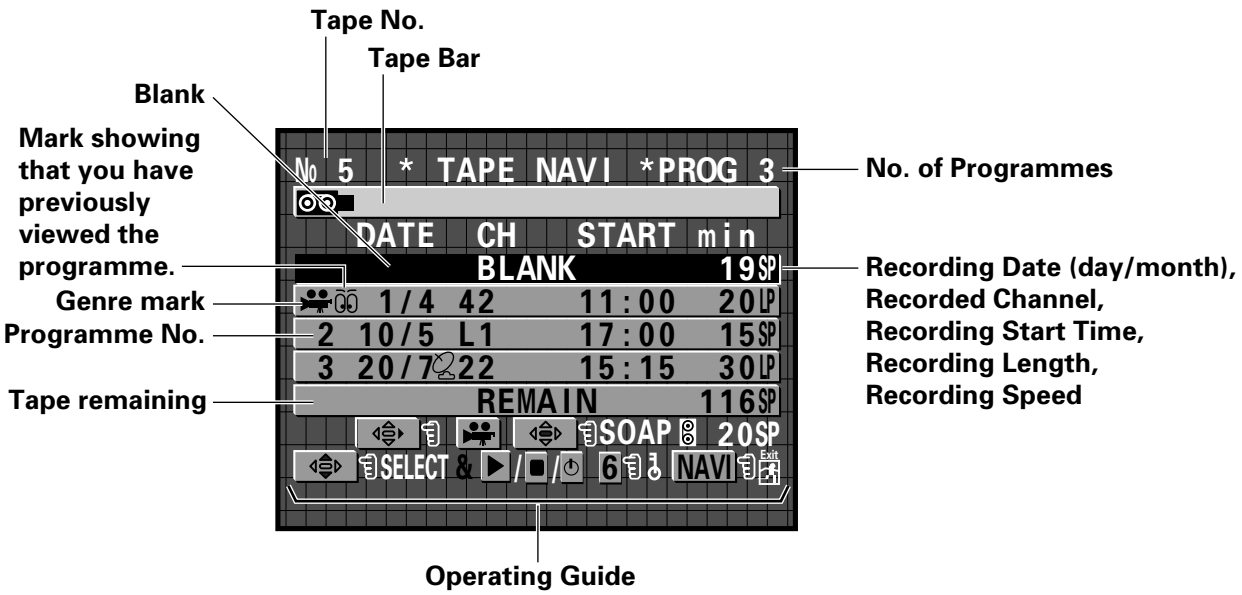
2

Press the TAPE NAVIGATION button on the VCR or the NAVI button on the remote control.
The tape data menu will appear on the TV screen.

Note: If the cassette in the VCR does not have Tape Navigation data, refer to "Cassette without Tape Navigation data" on page 44.

3

Press the buttons displayed in the menu to choose the operation you want.



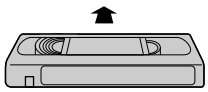
Interpreting the TAPE NAVI Data Menu

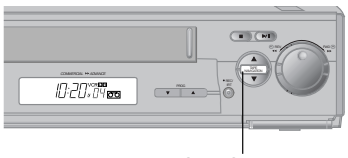
Tape Number	Identifies the tape in the VCR.
Number of Programmes	Shows the number of programmes recorded on the tape.
Tape Bar	Shows the approximate length of specific recorded programme and its location on tape.
View Mark	Shows that you have already watched more than half of a recorded programme from the start.
Genre Mark	Select and attach genre marks to record programmes to identify them.
Blank	Shows the blank (non-recorded) section of tape and the remaining recording time on tape.
Tape Remaining	Shows the remaining of non-recorded section of tape and the remaining recording time on tape.
Operating Guide	Shows the button names and operations that can be done when the TAPE NAVI data menu is being displayed.

(TAPE NAVIGATION)

Controls **TV Screen**

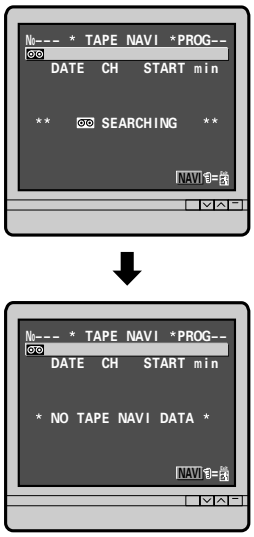
1





Cassette without Tape Navigation data
If a cassette which was not recorded on this VCR is inserted, the VCR will check the Tape Navigation data. The TAPE NAVIGATION button will flash for a few seconds and the VCR will prompt you to input the type of tape.

2



Press the TAPE NAVIGATION button on the VCR or the NAVI button on the remote control.
The search menu will appear on the TV screen, and the TAPE NAVIGATION button will flash for a few seconds in search mode.
If the VCR cannot find the tape data, “NO TAPE NAVI DATA” will appear on the TV screen.

Splitting Tape Navigation data of recorded programmes broadcast with PDC signal

If the PDC signal changes during recording, the split Tape Navigation data of recorded programmes will be displayed on the programme list.
Example: If you have recorded a programme from 15:00 to 18:00, and broadcast send three programmes.

Broadcast without PDC signal: The programme data will not be split.

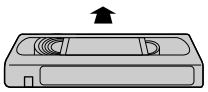
Broadcast with PDC signal: The programme data will be split into three sections.

This splitting phenomenon occurs for programmes broadcast with the PDC signal in normal, IRT and timer recording modes.

Searching for a programme or a non-recorded (blank) section

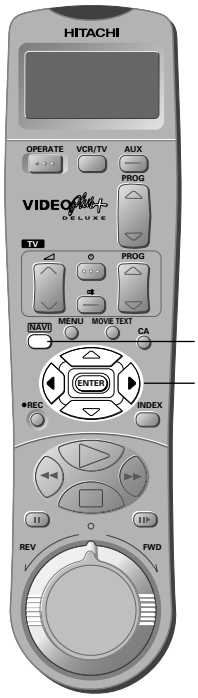
Controls **TV Screen**

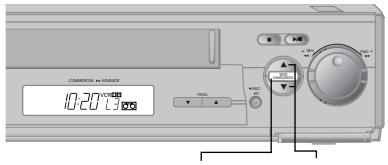
1



Insert a cassette recorded on this VCR.
The VCR will automatically turn on, the tape indicator will light in the VCR display, and the TAPE NAVIGATION button will flash.

2



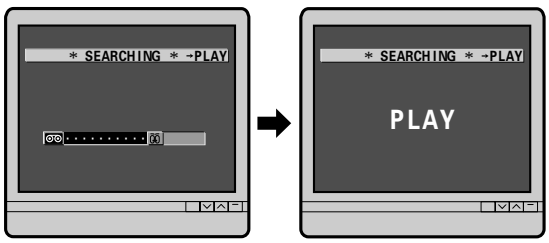


Press the TAPE NAVIGATION on the VCR or NAVI button on the remote control.
The TAPE NAVI menu will appear on the TV screen.
Press the ⌃ or ⌄ cursor button or TAPE NAVI ▲ or ▼ on the VCR to select the operation you want.

3

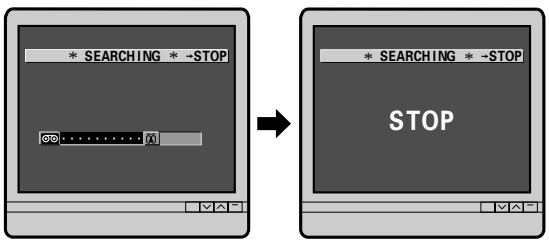
If you want the VCR to stop at the beginning of a non-recorded tape (REMAIN) or blank section
Select the non-recorded tape (REMAIN) or blank section (BLANK) and press the stop □ button.
The screen will show non-recorded tape or a blank section in the TAPE NAVI menu.

4



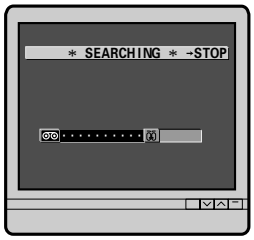
If you want the selected programme to playback automatically
Select the programme and press the play ▷ button.
The searching play menu will appear on the TV screen. When the beginning of the programme is located, playback will start automatically.

5



If you want the VCR to stop at the beginning of the selected programme, before starting playback
Select the programme and press the stop □ button.
The searching stop menu will appear on the TV screen. When the beginning of the programme is located, the VCR will stop automatically.

6



If you want to turn off the VCR at the beginning of a non-recorded/blank section
Select the blank section (REMAIN) and press the OPERATE button.
The VCR will turn off automatically after locating the beginning of the blank section.

(TAPE NAVIGATION)

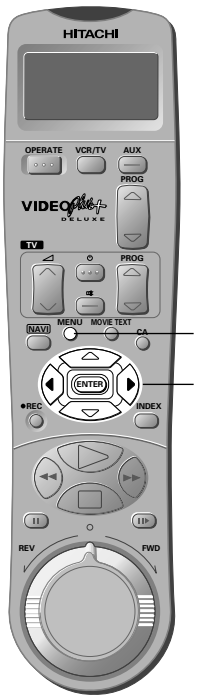
Using TAPE NAVI MENU

You can use the on-screen display menu to manage stored tape data. The TAPE NAVI MENU will allow you to:

- Turn TAPE NAVI on or off.
- PROGRAM LOCK on or off.
- Delete tape data.
- Display the TAPE LIST and stored programmes.

Controls **TV Screen**

1



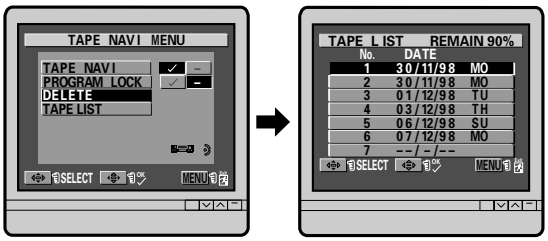
Press the MENU button.
Press the ▽ cursor button to select the NAVI menu, and then press the ENTER button.
The TAPE NAVI MENU will appear on the TV screen.

To switch TAPE NAVI on or off
Make sure that a cassette is not inserted, and press the △ or ▽ cursor button to select TAPE NAVI. **Press the ◀ or ▶ button** to set TAPE NAVI to on or off and then press the MENU button.

Notes:
- If you have specified TAPE NAVI – (off), the following functions will not operate:
- With TAPE NAVI – (off), the TAPE NAVIGATION button or NAVI button cannot function until you change the setting to ✓ (on).
- With TAPE NAVI – (off), Tape Navigation cannot be used if a cassette recorded on this VCR is inserted.

1

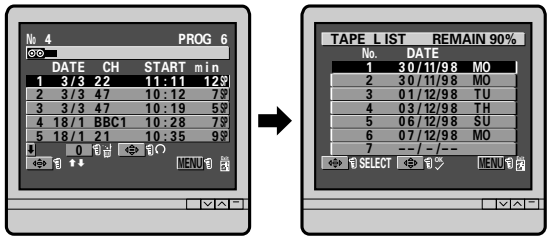
To delete unnecessary tape number
Press the △ or ▽ cursor button to select DELETE, and then press the ENTER button.
The TAPE LIST menu will appear on the TV screen.
Press the △ or ▽ cursor button to select the tape number you want to delete, and then press the ENTER button.



Note: You cannot delete the tape number which is being inserted.

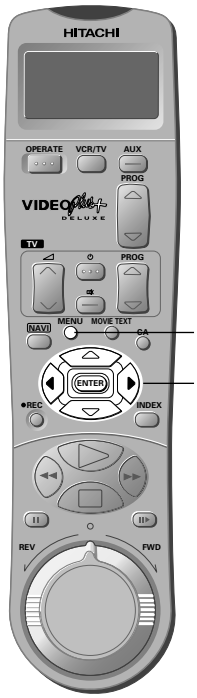
2

The programme list of the tape to be deleted will appear on the TV screen.
Press the ⓪ button to delete the selected tape number.
The TAPE LIST menu will appear on the TV screen to show that the selected tape number has been deleted.



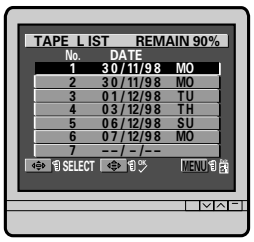
Controls TV Screen

1



To display stored tape number data
Press the ▽ cursor button to select TAPE LIST, and then press the ENTER button.
The TAPE LIST menu will appear on the TV screen.

2



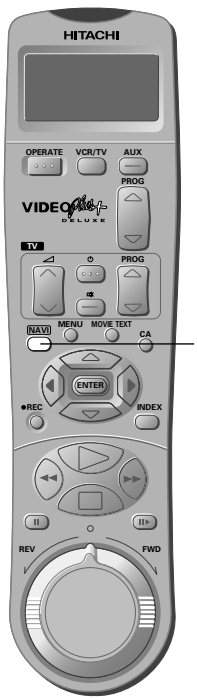
Press the △ or ▽ cursor button to select the tape number you want to display, and then press the ENTER button.
The list of programmes stored in the selected tape number will appear on the TV screen.

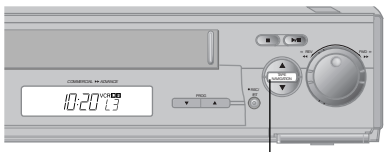
3

To attach a genre mark to the desired programme
Press the △ or ▽ cursor button to select the programme, and press the ▶ cursor button to select the suitable genre mark.
Press the ◀ cursor button to delete the genre mark.

Note: The genre mark can also be delete or attached by pressing the NAVI button. The TAPE NAVI MENU will appear. Press the ◀ or ▶ button to delete or to attach the genre mark.

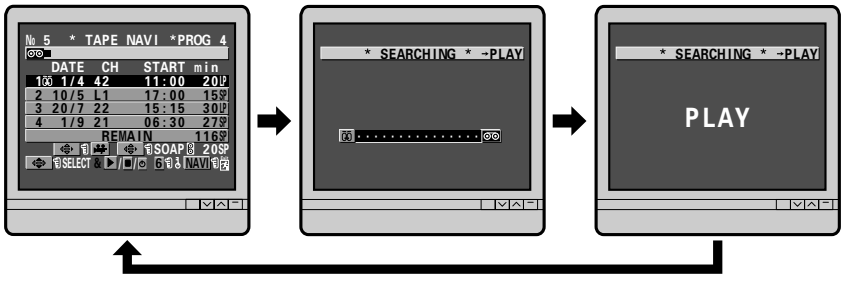
TAPE NAVIGATION Demonstration Mode





Make sure that a cassette is not inserted. Press and hold the NAVI button on the remote control and then press the TAPE NAVIGATION button on the VCR. TAPE NAVI screen will appear.
Choose the programme for demonstration by pressing TAPE NAVI ▲ or ▼ button. Press the PLAY or STOP button to do immediate demonstration. Otherwise, the set will automatically go to next demonstration step after 5 minutes. To release demonstration mode, press and hold the NAVI button on the remote control and then press the TAPE NAVIGATION button on the VCR.

Note: The TAPE NAVIGATION button on the VCR will flash during demonstration mode.



ADDITIONAL OPERATIONS

(TAPE NAVIGATION)

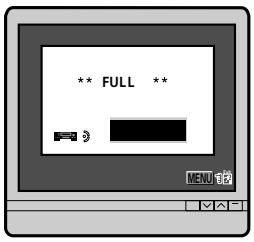
Caution display menu

This VCR has a memory capacity of 200 programmes. If the memory is full or does not have enough free space to store any more tape data, the on-screen display will show caution messages when you start recording.

When more than 90% of the memory has been used

If you press the REC button, the CAUTION message will appear on the TV screen.

— or —



— or —

When the memory has been used up

If you press the REC button, the FULL message will appear on the TV screen.
In such cases, if you want to store data of the tape you are going to record, delete unnecessary tape data from the memory. Please refer to page 46.

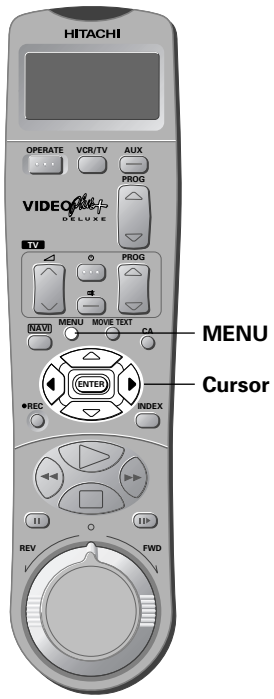
NAVI LOCK

NAVI LOCK function prevent accidently deleting of important programmes.
Notes: Tape Navi function must be set to enable Navi lock function.

PROGRAM LOCK function "√" (on) / "—" (off)

Controls **TV Screen**

1



Press the MENU button.
Press the ▽ cursor button to select the NAVI menu, and then press the **ENTER** button.
The TAPE NAVI MENU will appear on the TV screen.

2

MENU

Cursor

Press ▽ button to select PROGRAM LOCK. Press the ◀ cursor button to set PROGRAM LOCK to "√ " (on), and then press the **MENU** button.
Initially PROGRAM LOCK is "—"(off).
Notes:
If you have specified TAPE NAVI "—", the PROGRAM LOCK, DELETE and TAPE LIST will not appear on the Tape Navi menu.

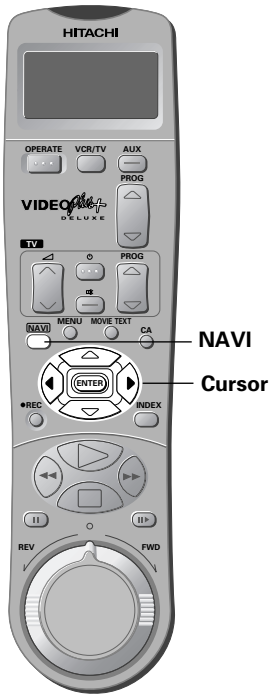
3

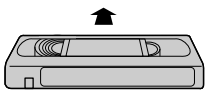
To end, press the **MENU** button.

Program Lock function during recording

Controls **TV Screen**

1





Insert a cassette recorded on this VCR. The VCR will check the Tape Navigation data. The **TAPE NAVIGATION** button will flash for a few seconds, and then change to steady light if the VCR has recognized the tape and normal operation can proceed.

2

NAVI

Cursor

Press the **NAVI** button. The tape data menu appear on the TV screen.

3

Press the △ and ▽ cursor to select the programme you wish to protect.

(NAVI LOCK)

Controls **TV Screen**

4

Press the ⑥ button.
" " will appear on the left of the date at the selected programme.
The programme is locked.
To lock other programmes, please follow step 3 and 4.
To unlock the programmes, press the ⑥ button again.

5

NAVI

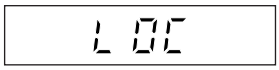
Press the **NAVI** button to go to normal screen.

Notes:

Things to know regarding Navi Lock.

During usual recording:

VCR display



Prog A	Prog B	Blank
" LOC " will appear	Locked Programme	" LOC " will not appear

TV Screen

- If the cassette has locked programmes and **REC** button is pressed before the locked area, the OSD will display "Protected programme on this tape".
- If the REC button is pressed 1 minute before the beginning of locked programme or in the locked area, "This position is protected" will be displayed on the TV screen and the VCR will eject the tape. The " LOC " will be displayed in the VCR.
- If **REC** button is pressed after locked programmes, no warning message will appear on the OSD screen.
- Press the **MENU** or **NAVI** button to skip this display.

During timer recording:

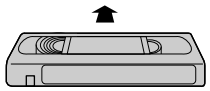
- If the timer recording is set and the cassette have programme locked, the OSD will display warning message "Protected programme on this tape".
- If the tape position is 1 minute before the beginning of locked programme or in the lock area, the VCR will stop recording, eject the tape and goes to power off mode. The " LOC " will still blink in the VCR display until power on again.

SOAP RECORDING

"Soap Recording" function is an easy way to set timer programming by choosing a registered programme from Tape Navi data menu. It is convenient for serial drama.

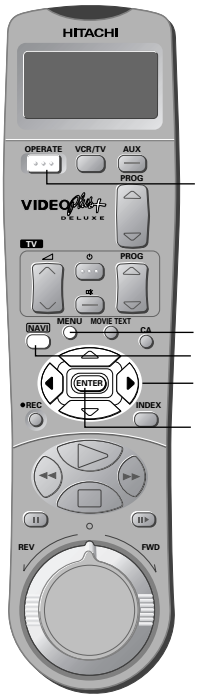
Controls **TV Screen**

1



Insert a cassette recorded on this VCR. The VCR will check the Tape Navigation data. The **TAPE NAVIGATION** button will change to steady light if the VCR has recognized the tape.

2



Press the **NAVI** button on the remote control. The tape data menu will appear on the TV screen.

Press the ⌓ or ⌔ cursor button to select the programme you wish to do Soap Recording. For example, programme 03, date: 30/11, channel: ITV, start-time of 23:00, recording duration of 50 minutes and recording speed in SP mode.
Note: You can do Soap Recording on programme with PDC signal but after Soap Recording the PDC signal is not applicable to the recorded programme.

3

DAILY SOAP TIMER
DLY SU MO TU WE TH FR SA
DATE CH START min
1 5/9 BBC1 10:00 32
2 6/11 BRTN1 09:00 55
3 30/11 ITV 23:00 50
4 1/12 CH5 12:00 15
5 1/12 ITV 17:30 100
SOAP 120
SELECT
NAVI

Press the **ENTER** button. The Soap Recording menu will appear.

4

DAILY SOAP TIMER
DLY SU MO TU WE TH FR SA
DATE CH START min
1 5/9 BBC1 10:00 32
2 6/11 BRTN1 09:00 55
3 30/11 ITV 23:00 50
4 1/12 CH5 12:00 15
5 1/12 ITV 17:30 100
SOAP 120
SELECT
NAVI

Press the ◀ or ▶ cursor to select the day you wish to record. For example, Wednesday. Then press the **ENTER** button.
The selected day will change colour. The VCR will record the programme on that day at the same time every week.

5

DAILY SOAP TIMER
DLY SU MO TU WE TH FR SA
DATE CH START min
1 5/9 BBC1 10:00 32
2 6/11 BRTN1 09:00 55
3 30/11 ITV 23:00 50
4 1/12 CH5 12:00 15
5 1/12 ITV 17:30 100
SOAP 120
SELECT
NAVI

DAILY SOAP TIMER
DLY SU MO TU WE TH FR SA
DATE CH START min
1 5/9 BBC1 10:00 32
2 6/11 BRTN1 09:00 55
3 30/11 ITV 23:00 50
4 1/12 CH5 12:00 15
5 1/12 ITV 17:30 100
SOAP 120
SELECT
NAVI

You can also select more than one day. For example, Wednesday and Friday. The selected days will change colour. The VCR will record the programme on these days at the same time every week.
To record at the same time everyday of the week, press the ◀ cursor to select "DLY" and then press **ENTER** button.

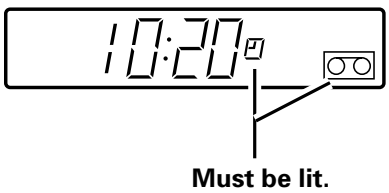
(SOAP RECORDING)

Controls **TV Screen**

6

Press the **NAVI** button to go to REVIEW screen and press **MENU** button to exit.

7



Must be lit.

To activate the VCR's timer and make a recording at the preselected time, be sure to press the **OPERATE** button to turn the VCR off.

- The indicator " " in the VCR display will light on.
- If a cassette is not loaded in the VCR, the indicator " " starts flashing.

Soap Recording will not operate if:

- Programme listed in Tape data menu does not have the start-time.
- Blank of Remain section is selected.
- If the clock is not set.
- If the selected channel no longer exist or has been deleted.

Notes:

- When 12 programmes (maximum) are stored for the Soap Recording and you try to register another Soap Recording, "FULL " indication will appear in the VCR's display and on the TV screen.
- If you have selected no longer exist or has been deleted channel, " Err " will appear in the VCR's display.
- The VCR will start recording from the current position of the tape.

MOVIETEXT™

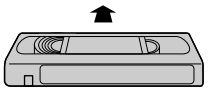
You can display a subtitles on the TV screen when the VCR is playing back a tape with MOVIETEXT™ signal.

- The subtitle will disappear during forward/reverse search or slow motion play.
- The subtitle may not appear correctly when a tape with scratches or a poorly recorded tape is played back.

To display subtitle while viewing tape playback

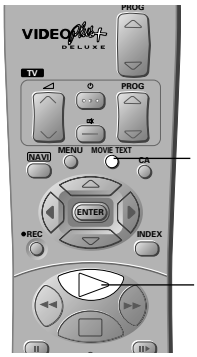
Controls **TV Screen**

1



Insert a cassette tape with MOVIETEXT™ signal recorded.

2



Press the play ▷ button to start playback.

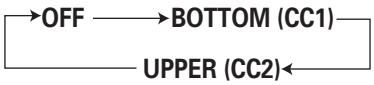
3

Press the MOVIE TEXT button on the remote control.
The subtitle will appear after about 5 seconds on the TV screen and change as follows:

Off ➡ CC1 ➡ CC2

Notes:

- Each time the MOVIE TEXT button is pressed, the subtitle display status on the TV screen will change as follows:



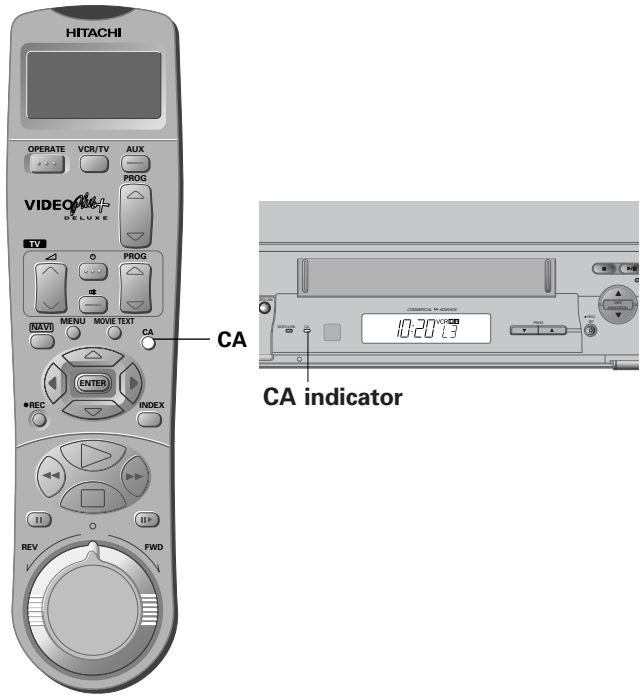
- Subtitle will also appear with external video sources with MOVIETEXT™ signal.
- Subtitle will also appear with a tape dubbed from another tape with MOVIETEXT™ signal.
- Subtitle cannot appear SUBTITLE OF TELETEXT signal.
- For NTSC playback, the “CCI” and “CC2” will not appear, but the subtitle will appear after a few seconds.

COMMERCIAL ▸▸ ADVANCE®

COMMERCIAL ▸▸ ADVANCE® allows the VCR to automatically or manually skip past detected commercial groups during replay of a recorded television broadcast.

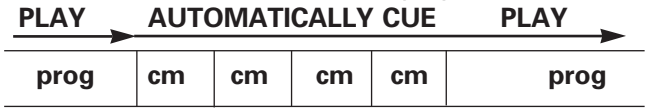
1 Press the CA button on the remote control handset. The CA indicator on the VCR will be lit. Play the tape with commercials in it.

2



(i) **Commercial Skip**

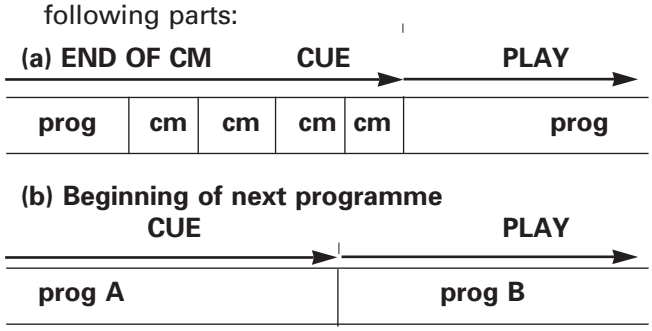
(a) When the VCR detects the commercials, the VCR will fast forward the tape to the end of the commercial and continue to playback.



Note: During this commercial skip or cue mode the CA indicator will be alight.

(b) To initiate a manual skip to the end of the next commercial group with the COMMERCIAL ▸▸ ADVANCE® switched to on, press forward search (F.FWD button). The skipping will terminate as shown below.

(ii) During commercial skip or cue mode with COMMERCIAL ▸▸ ADVANCE® function on, the VCR will change to playmode, if VCR detects the following parts:



3 **Notes:**

COMMERCIAL ▸▸ ADVANCE® will operate in the following conditions:

- Tape Navigation is set to ON.
- Playback the self-recorded tape.
- The recording is made from antenna input.
- The channel to record in not BBC1 or BBC2.

COMMERCIAL ▸▸ ADVANCE® will **not** operate in the following conditions:

- CA is set to OFF (front panel light not on).
- Tape Navigation is set to OFF .
- Playback of tapes not recorded on this VCR.
- When selected input either L1 or L2 or L3 input.
- Tape NAVI data for this tape has been deleted.
- Commercial detection was not on during recording (as listed above).

Operating notes:

- If a power failure has occurred during recording, COMMERCIAL ▸▸ ADVANCE® may not operate correctly.
- COMMERCIAL ▸▸ ADVANCE® is not 100% accurate, it is normal for some commercials is to not be skipped.
- If you press the play or rewind button during COMMERCIAL ▸▸ ADVANCE® the feature will be turn off during this commercial break.
- COMMERCIAL ▸▸ ADVANCE® may skip part of a programme which is dark and or quiet.
- COMMERCIAL ▸▸ ADVANCE® will not skip commercials groups which are less than 55 seconds in total length.
- COMMERCIAL ▸▸ ADVANCE® will not skip single commercials.

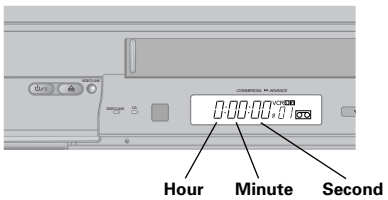
How to override COMMERCIAL ▸▸ ADVANCE®

Even when CA is set to ON, automatic skipping can be temporarily suspended (overridden). You may override skipping by pressing PLAY or STOP while a commercial group is being automatically skipped. If you wish to view that commercial group, you may reverse the tape back to a point before the commercial group started and press PLAY. This time, when the start of the commercial goup is found, the group will not be automatically skipped. Automatic skipping will be re-enabled after the VCR detects the end of the commercial group.

SPECIAL CHARACTERISTICS

Linear time counter

1



Press the CLOCK/COUNT button to select the linear time counter display. Every time the button is pressed, it changes the VCR display between the clock time display and time counter display.

- The counter is reset to 0:00:00 when a tape is ejected.
- When the tape starts, it counts up from 0:00:00 and the counter indicates the elapsed time.
- Pressing the 0000 button resets the time counter to "0:00:00".

Notes:

- The linear time counter does not operate when nothing is recorded on the tape.
- The counter may not be able to count the time precisely with some types of tape and at particular positions of the tape.

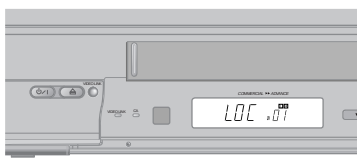
Automatic rewind

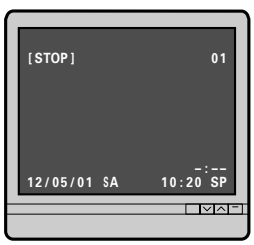
The VCR automatically rewinds the tape when the end of tape is reached.
To prevent accidental erasure, the VCR does not rewind the tape after timer recording.

Rewind shut off

If the OPERATE button is pressed during the rewind operation, the VCR will be turned off but rewind operation will be continued until the tape has been completely rewound.

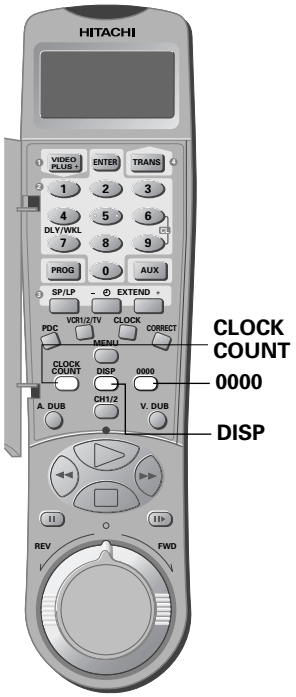
Mode lock function

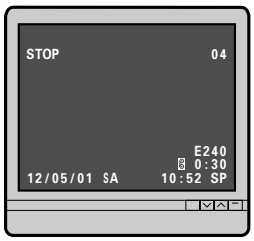




Press the buttons (6) and (9) (CL) buttons simultaneously on the remote control handset.
The VCR mode is now locked and "LOC" appears in the VCR display and also "[ ]" is displayed on the TV screen.
When the VCR operating mode is locked, the VCR accepts remote control commands but it will not accept any commands from the buttons on the VCR, except the jog and shuttle control.
To release the VCR lock, press the button (6) and (9) (CL) buttons simultaneously or press the OPERATE button on the handset.

Tape remaining display function





When you start playback, recording, fast forward or rewind, the VCR will automatically calculate the remaining time within approx., 1 minute. The remaining time appears on the TV screen for approx. 5 seconds by pressing the DISP button.

Notes:

- If you are using an E-240, E-260 or E-300 tape, press the CLOCK/COUNT button to switch the VCR display to the clock indication and press the 0000 button to adjust the VCR time remaining system for an accurate read-out. Each time the 0000 button is pressed, the TV screen is switched from “E240” to “E260”, “E300”, “no display” and back to “E240” in sequence.
- Use the tape remaining display as a reference. The tape remaining function is designed so it works correctly with E-30, E-60, E-120, E-180, E-240, E-260, and E-300 cassettes. If you use other than these cassettes, the remaining time will not be displayed correctly.

Index function

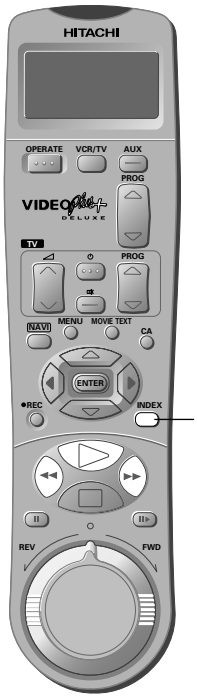
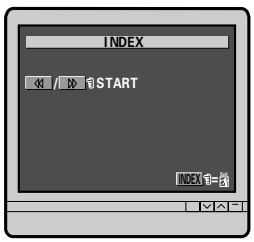
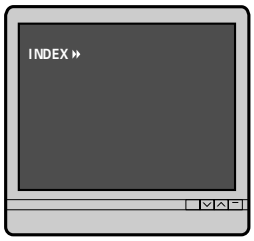
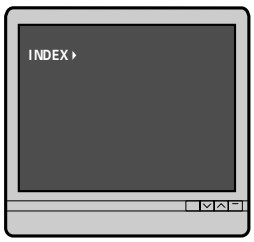
The cassette tape may be recorded using the tape indexing feature for the rapid location of any section.

To record using the indexing feature
Record as usual. Each time you press the REC or REC/IRT button to begin recording, an index signal is recorded on the tape.

The index signal is only recorded on the tape when you first begin to record. If you use the pause feature between different recorded programmes, no new index signal will be recorded. Press the stop button and then record between different recordings.

Note: An index signal is also recorded during recording pause by pressing the PROG button to switch the channel to be recorded.

To locate a programme using the index feature
The index function lets you view the first few seconds of all recordings on the tape. This also allows you to jot down details of all recordings on the tape easily.
To locate a programme using the index feature, turn on the VCR and insert a cassette which was recorded using the tape indexing feature, then operate as follows.

	Controls	TV Screen	
1	 INDEX		**Press the INDEX button** when a cassette is loaded and the VCR is in the stop mode.
2			**Press the rewind ◄◄ or fast forward ►► button.** The tape will be rewound or fast forwarded until an index mark is detected.
3			When the VCR has located an index mark, it will enter the playback mode for approximately 15 seconds. This is long enough for you to recognise the programme. The VCR then winds the tape to subsequent index marks in sequence.
4			When you see the programme you want to watch, **press the play ▷ button** to start playback. The INDEX indicator will disappear from the TV screen.

Rental play

This VCR will automatically start playback when a cassette with its safety tab removed is inserted. When the tape reaches its end or when the VCR plays the non-recorded section for approximately 30 seconds, the VCR will enter the rewind mode. When the tape is rewound the VCR will eject the cassette and turn off the power.

MENU FEATURES

Controls **TV Screen**

1

Turn on the VCR and TV, then set the TV to the video programme number.

2

Point the remote control handset at the receiver on the front of the VCR.

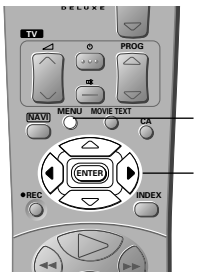
Press the MENU button.

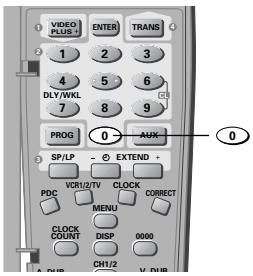
The menu, as illustrated, will appear on the TV screen.

3

Press one of the cursor buttons to select the required display, and then **press the ENTER button.**

Checking (reviewing) the programme information



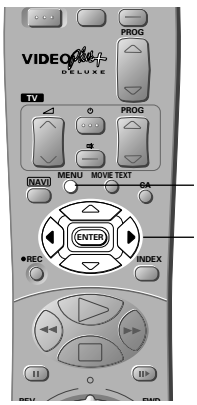


Press one of the cursor buttons to select REVIEW, and then press the ENTER button.
The TV screen will display the information you have entered for 1 minute.

Note: If no programme information is stored, the screen will shows no programme data.

- Press the △ or ▽ cursor button to immediately view the next programme information.
- Pressing the 0 button will clear the programme data.
- Press the MENU button to return to the original picture.

Video mode setting

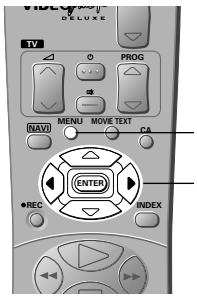


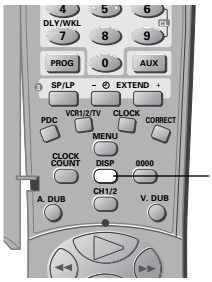
You can change the VCR mode as required.
Press one of the cursor buttons to select MODE, and then press the ENTER button.

The menu, as illustrated, will appear on the TV screen.

Press the △ or ▽ cursor button to change the required display. (See next page for details.)

OSD (√) or (—)





Press the ◀ **or** ▶ cursor button to change the On-Screen Display setting, and then press the MENU button. This symbol (√) means ON and this symbol (—) means OFF.

(√): Whenever you change the mode, the new mode is automatically displayed on the TV screen for a few seconds.

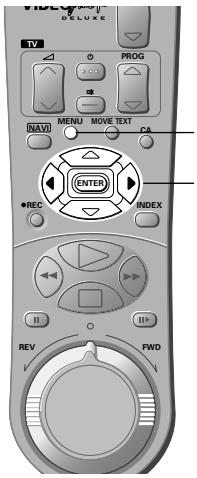
Notes:

- If the DISP button is pressed with this setting, the on-screen display will appear for a few seconds.
- When the DISP button is pressed again, the display will disappear from the TV screen.

(—): Any operation mode other than pressing DISP button, OSD will not appear on the TV screen even though the VCR is operated.

Note: When an NTSC tape is played, no operation mode will appear on the TV screen regardless of the OSD on (√) or off (—) setting.

VIDEO LINK (L1) or (L2)

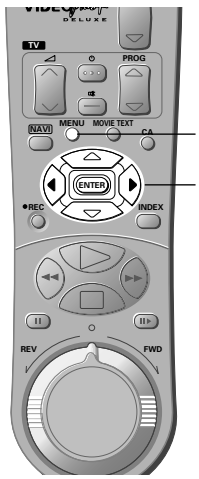


1. **Press the △ or ▽ cursor button** to select VIDEO LINK.
2. **Press the ◀ or ▶ cursor button** to change the VIDEO LINK setting and then press the MENU button.

(L1): To record video and audio from TV, select L1.

(L2): Your satellite/cable decoder will automatically activate the VCR to start and stop recording. Refer page 40.

TAPE ANALYZER (✓) or (—)



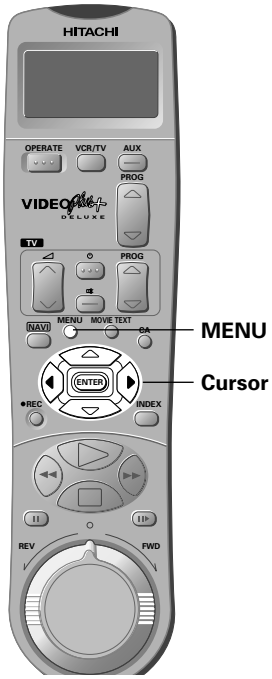
1. **Press the △ or ▽ cursor button** to select TAPE ANALYZER.
2. **Press the ◀ or ▶ cursor button** to change the setting and then press the MENU button.

(✓): The VCR automatically detect the type of tape used during recording. ATRS will appear on the TV screen when you press REC button.

(—): ATRS function will not operate.

(MENU FEATURES)

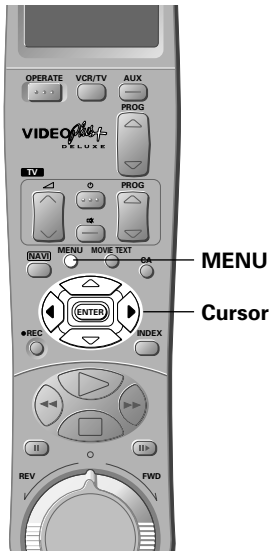
REMOTE (1), (2) or (—)



1. **Press the ⌃ or ⌄ cursor button** to select REMOTE.
2. **Press the ◀ or ▶ cursor button** to change the remote code setting, and then press the MENU button.

This display lets you control your VCR when "VCR1" or "VCR2" appears in the remote control handset's display.
This is convenient when you want to add another Hitachi VCR to your system, and control both VCRs with the same handset.
"VCR1" display in the handset's display will control the VCR to which (1) was assigned with this display, and "VCR 2" will control the VCR to which (2) was assigned with this display.
(1): Your VCR will respond to "VCR1"
(2): Your VCR will respond to "VCR2"
(—): Your VCR will respond to either.
For example, if you select (2), you must press the VCR1/2/TV to display "VCR2" before the VCR will respond to the handset.

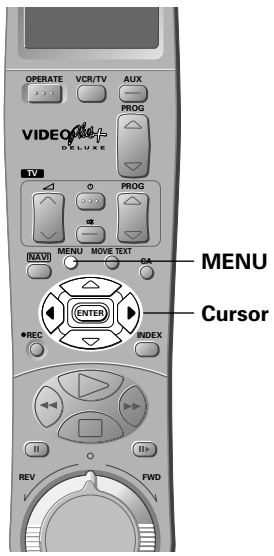
PROGRAM PLAY (√) or (—)



1. **Press the ⌃ or ⌄ cursor button** to select PROGRAM PLAY.
2. **Press the ◀ or ▶ cursor button** to change the auto programme play setting, and then press the MENU button.

(√): After the timer recording has finished, the VCR will automatically rewind the tape to locate the programme just recorded then begin playing it back, by merely turning on the VCR.
Note: If two or more programmes are recorded at once, the programme recorded last is played back.
(—): The auto programme play feature is switched off.

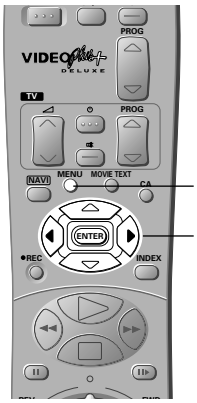
AUDIO MIX (√) or (—)



1. **Press the ⌃ or ⌄ cursor button** to select AUDIO MIX.
2. **Press the ◀ or ▶ cursor button** to change the audio mix setting, and then press the MENU button.

(√): The VCR plays both the VHS Hi-Fi sound and linear sound at the same time.
(—): The VCR plays either the VHS Hi-Fi sound or linear sound.
Note: The display does not effect the L and/or R audio indicator in the VCR's display.

AUTO ◴ (√) or (—)



1. **Press the ▽ cursor button** to select AUTO ◴ clock.
2. **Press the ◀ or ▶ cursor button** to change the auto clock setting, and then press the MENU button.

(√): The clock will be set automatically when the VCR is tuned to a channel which is transmitting a PDC signal.

(—): The clock must be set manually.

Note: If you are setting the clock by remote control, the AUTO ◴ will be set to (—).

VIDEO Plus+® SYSTEM SETUP

Changing the TV Programme Allocations

The VIDEO Plus+ System assumes that you have tuned your VCR as follow:

BBC1 is on programme 01
BBC2 is on programme 02
ITV is on programme 03
CH4 is on programme 04
CH5 is on programme 05

For timer recording using VIDEO Plus+ programming system, please refer to page 33.

Things to know before changing the programme allocations

- You have about one minute to complete each step of the procedure. If you do not proceed to the next step within this time, all entries are erased and you must start again.
- Check that the time and date are correct.

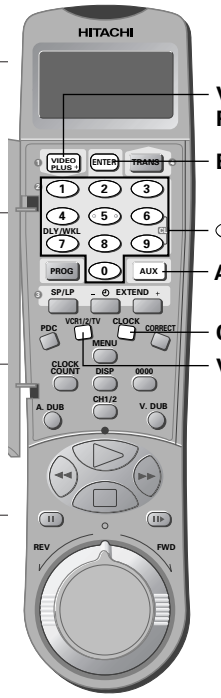
If you wish to change the programme allocations, follow the procedure below.

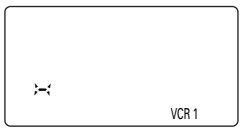
Controls **Remote Display**

1

Be sure to check that "VCR1" or "VCR2" is displayed.
This VCR is designed so it can be controlled when either "VCR1" or "VCR2" is selected.
See "REMOTE" on page 60.

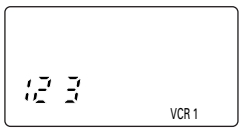
2





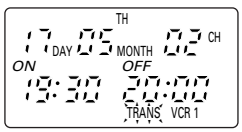
Press the VIDEO PLUS+ button.

3



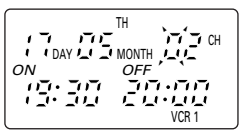
Enter the PlusCode programming number from the TV guide or newspaper etc. for the programme you want to record using the number buttons.

4



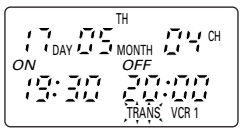
After entering the PlusCode number, **press the ENTER button**.
The programmed details appear.

5

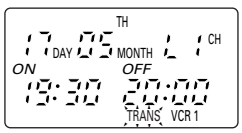


To change the TV programme allocation, **press the CORRECT button**.
The first digit of the TV programme number starts flashing. Then enter the correct TV programme number.

6



Press the ENTER button. Now the programme number has been memorised.
Press the CLOCK button to switch the display panel on the remote control handset back to the clock/calendar display.

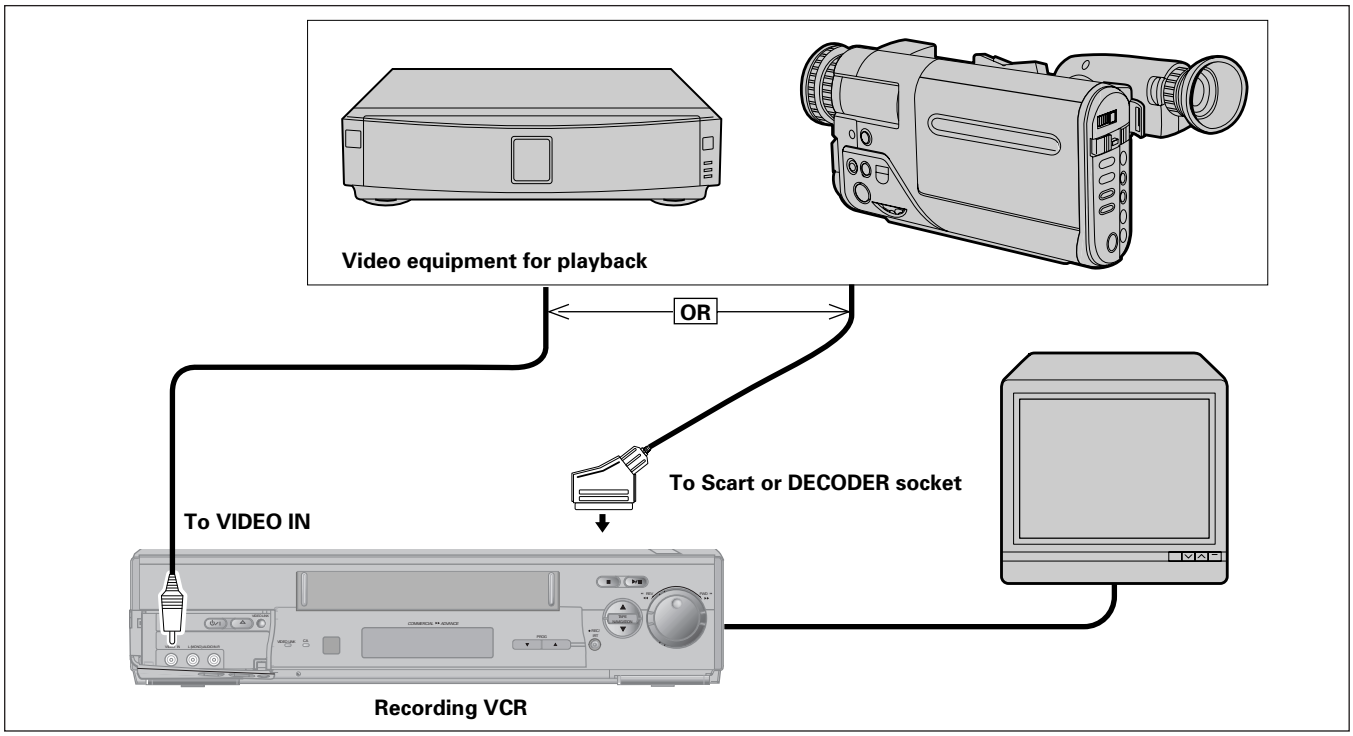


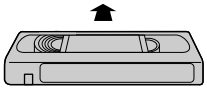
Note: See page 77 for details on changing satellite programme allocations.

Notes:

- If you change the TV programme allocations by following the above steps, the TV programme number will be automatically over written by the alternate programme number when you programme subsequently.
- If you want to record from external video equipment connected to the Scart socket or DECODER socket, press the AUX button to change the TV programme number to "L1" for Scart socket input or "L2" for DECODER socket input.

EDITING — VIDEO Dubbing



	Controls	VCR Display	
1			Connect the video source to this VCR as shown above. If the playback video source is connected to the Scart socket, the TV can be connected to the RF OUT terminal or any other Scart sockets of this VCR.
2			Turn on the VCR and TV on, then set the TV to the video programme number.
3			**Press the AUX button** to display “L1”, “L2” or “L3” in the VCR display. Select “L3” to dub the source input via the VIDEO IN jacks, “L2” to dub the source input via the DECODER socket or “L1” to dub the source input via the Scart socket on the back of the VCR. If “L1”, “L2” or “L3” is not displayed, the picture of the TV programme being received will be dubbed.
4			**Insert a cassette** into this VCR and play the tape then press the pause (II) button at the point where dubbing is to stop. The VCR enters the play/pause mode.

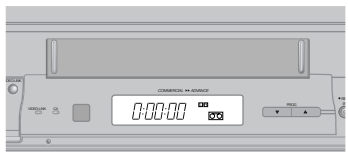
(EDITING — VIDEO Dubbing)

Controls **VCR's Display**

5

Press the CLOCK/COUNT button to display the linear time counter in the display.

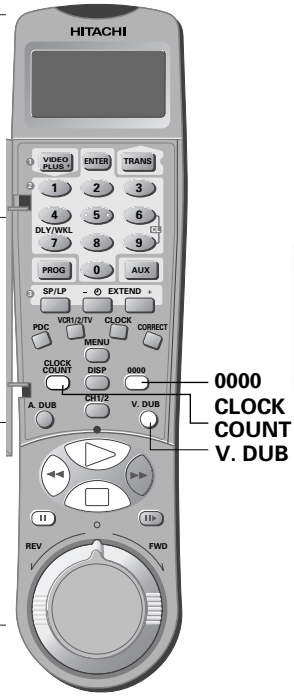
6



Press the 0000 button to set the linear time counter to 0:00:00.

7

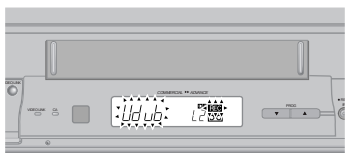
Press the rewind ◄◄ button to locate a point a few seconds before dubbing is to begin.



8

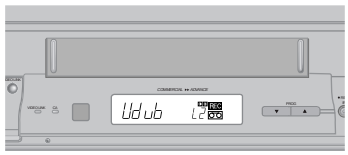
Press the play ▷ button and then ⏸ exactly where dubbing is to begin.
The VCR enters the play/pause mode.

9



Press the V. DUB button.
The VCR enters the dubbing pause mode.
REC and " Vdub " will blink in the VCR's display and "V. DUB ⏸" appears on the TV screen.

10



Press the pause ⏸ button to begin dubbing.
REC and " Vdub "appear in the VCR's display and "V.DUB" appears on the TV screen.
(Press the play button on the video equipment for playback.)
The VCR will stop at a counter reading of 0:00:00.
If you do not want the video dubbing to stop at the predetermined point, omit steps 5 and 6, and press the stop □ button to stop dubbing.

Notes:

- The dubbed picture will contain some colour noise.
- After you have performed video dubbing, use the AUDIO MIX display (see page 60) and the CH1/2 button to select the audio channel to be played back.

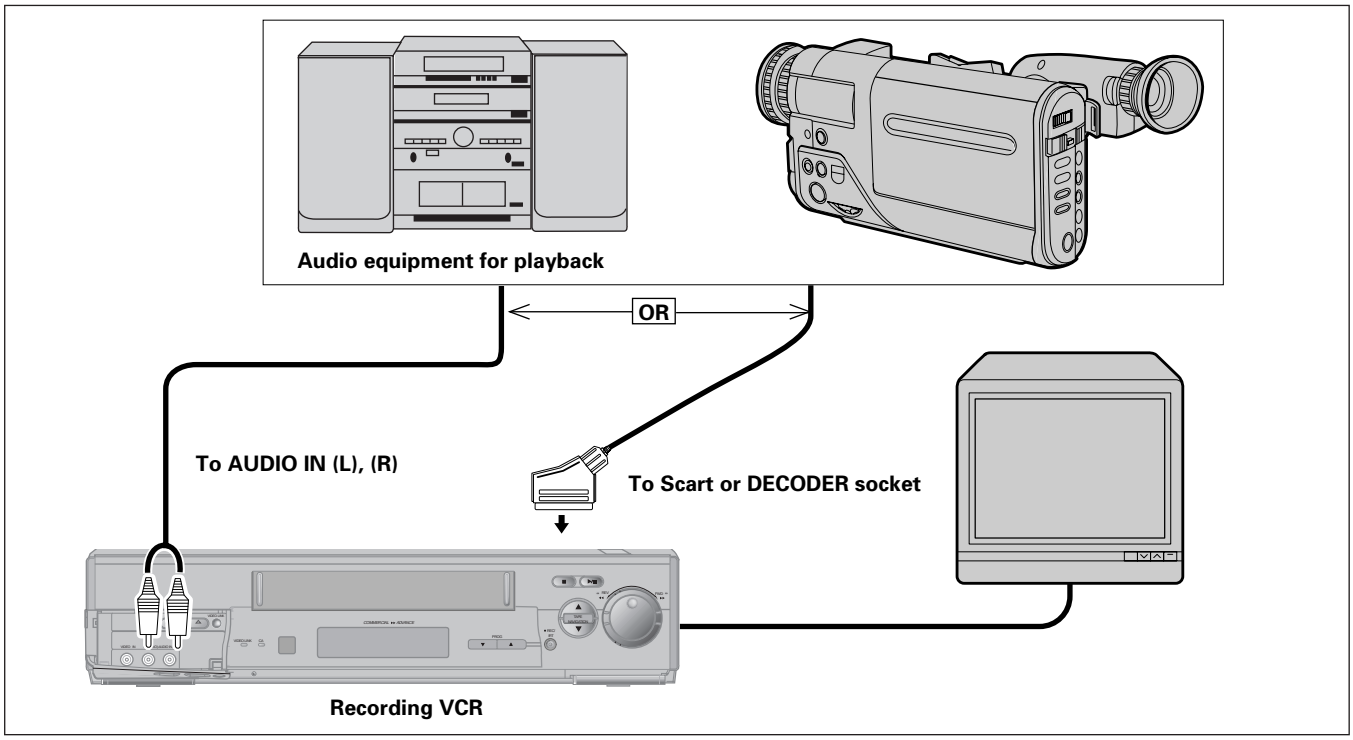
■ **When you have selected (√) in the AUDIO MIX display**

- Press the CH1/2 button and turn on L and/ or R audio indicators to play the original Hi-Fi audio mixed with the dubbed audio on the linear track.
- Press the CH1/2 button and turn off both the L and R indicators to play the dubbed audio.

■ **When you have selected (—) in the AUDIO MIX display**

- Press the CH1/2 button and turn on L and/ or R audio indicators to play the original Hi-Fi audio.
- Press the CH1/2 button to turn off both the L and R indicators to play the dubbed audio on the linear track.

EDITING — AUDIO Dubbing



Controls **VCR Display**

1

Connect the audio source to this VCR as shown above.
If the audio source has single audio output, connect it to the L-AUDIO IN socket on the front of this VCR to record it on both the L and R channels.

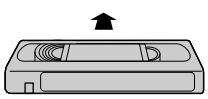
2

Turn on the VCR and TV on, then set the TV to the video programme number.

3

Press the AUX button to display “L1”, “L2” or “L3”, the source input via this Scart or DECODER socket on the back of the VCR will be dubbed.
If the programme number is displayed, the audio of the TV programme being received will be dubbed.

4



Insert a cassette into this VCR and play the tape then press the pause (II) button at the point where dubbing is to stop. The VCR enters the play/pause mode.

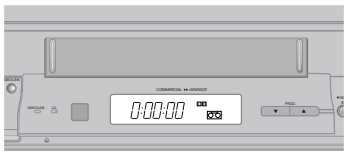
(EDITING — AUDIO Dubbing)

Controls **VCR's Display**

5

Press the CLOCK/COUNT button to display the linear time counter in the display.

6



Press the 0000 button to set the linear time counter to 0:00:00.

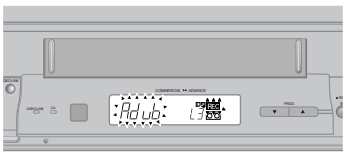
7

Press the rewind ◄◄ button to locate a point a few seconds before dubbing is to begin.

8

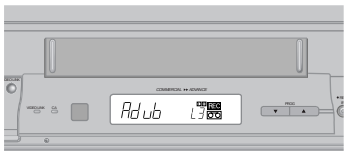
Press the play ▷ button and then ⏸ exactly where dubbing is to begin.
The VCR enters the play/pause mode.

9



Press the A.DUB button.
The VCR enters the dubbing pause mode.
REC and " Adub " will blink in the VCR's display.
The sound input from the audio source is heard from the TV.

10



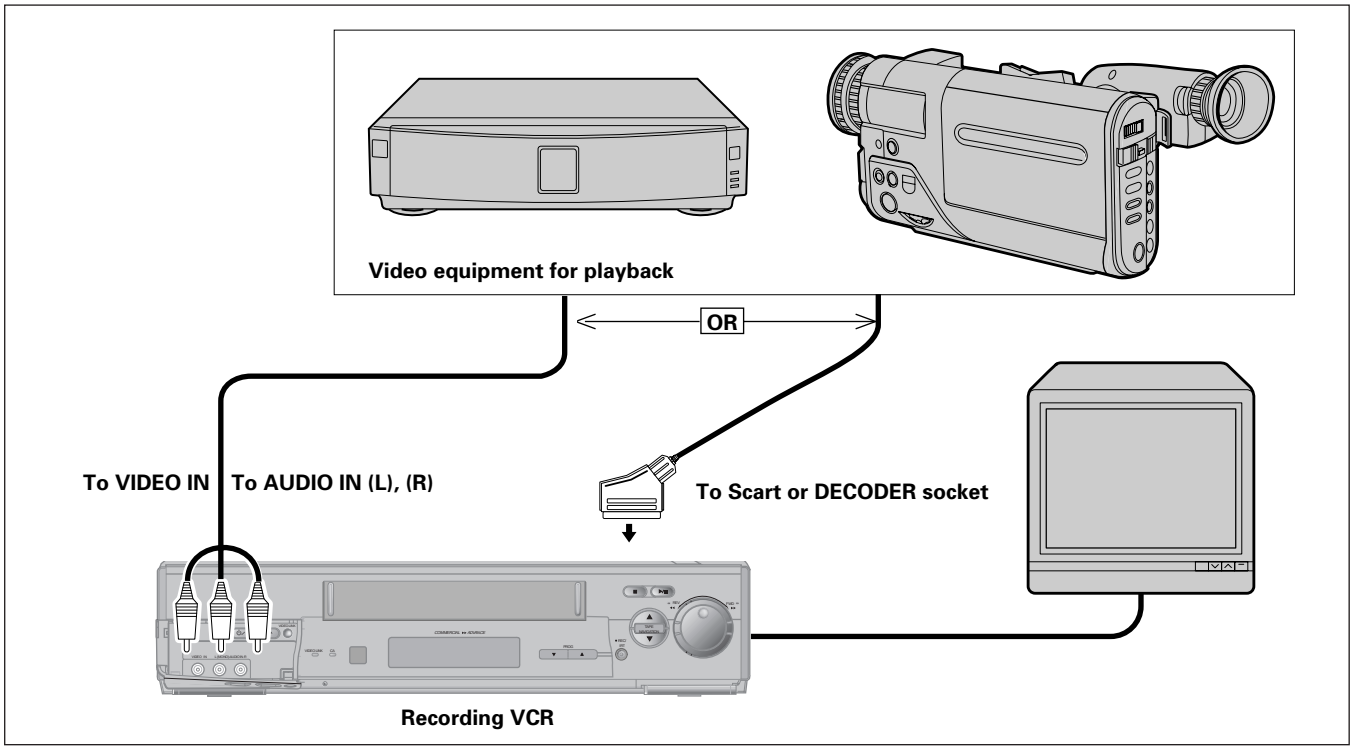
Press the pause ⏸ button to begin dubbing.
REC and Adub appear in the VCR's display and sound input from the audio source is heard from the TV. A.DUB appears on the TV screen.
(Press the play button on the video equipment for playback.)
The VCR will stop at a counter reading of 0:00:00.
If you do not want the video dubbing to stop at the predetermined point, omit steps 5 and 6, and press the stop □ button to stop dubbing.

Notes:
After you have performed audio dubbing, use the AUDIO MIX display (see page 60) and the CH1/2 button to select the audio channel to be played back.

■ **When you have selected (√) in the AUDIO MIX display**
- Press the CH1/2 button and turn on L and/ or R audio indicators to play the original Hi-Fi audio mixed with the dubbed audio on the linear track.
- Press the CH1/2 button and turn off both the L and R indicators to play the dubbed audio.

■ **When you have selected (—) in the AUDIO MIX display**
- Press the CH1/2 button and turn on L and/ or R audio indicators to play the original Hi-Fi audio.
- Press the CH1/2 button to turn off both the L and R indicators to play the dubbed audio on the linear track.

EDITING — Tape Dubbing



Controls **VCR Display**

1

Connect the second video equipment to this VCR as shown above. (Refer to the manual of second video equipment for connection)

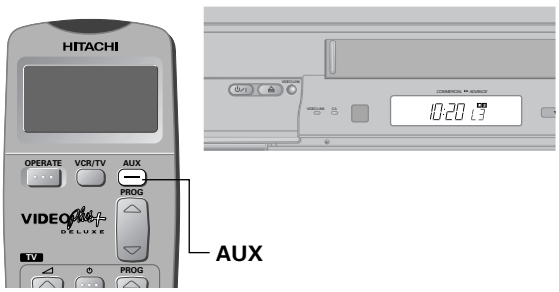
If the playback video source is connected to the Scart socket, the TV can be connected to the RF OUT terminal or any other Scart sockets of this VCR.

Note: If using this VCR for playback during dubbing or other operation, you must use the black scart socket as a connector source.

2

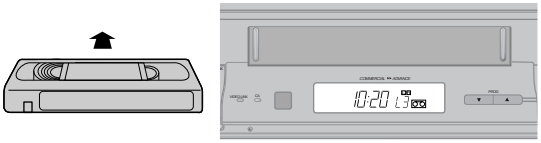
Turn on the VCR and TV, then set the TV to the video programme number.

3



Press the AUX button to display “L1”, “L2” or “L3” in the VCR display.
Select “L3” to dub the source input via the VIDEO IN/AUDIO IN jacks, “L2” to dub the source input via the DECODER socket or “L1” to dub the source input via the Scart socket on the back of the VCR. If “L1”, “L2” or “L3” is not displayed, the picture of the TV programme being received will be dubbed.

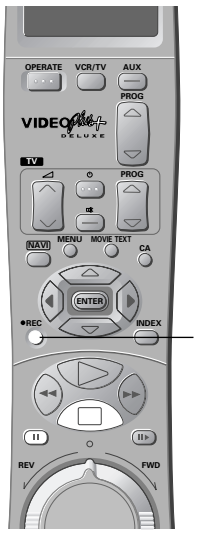
4



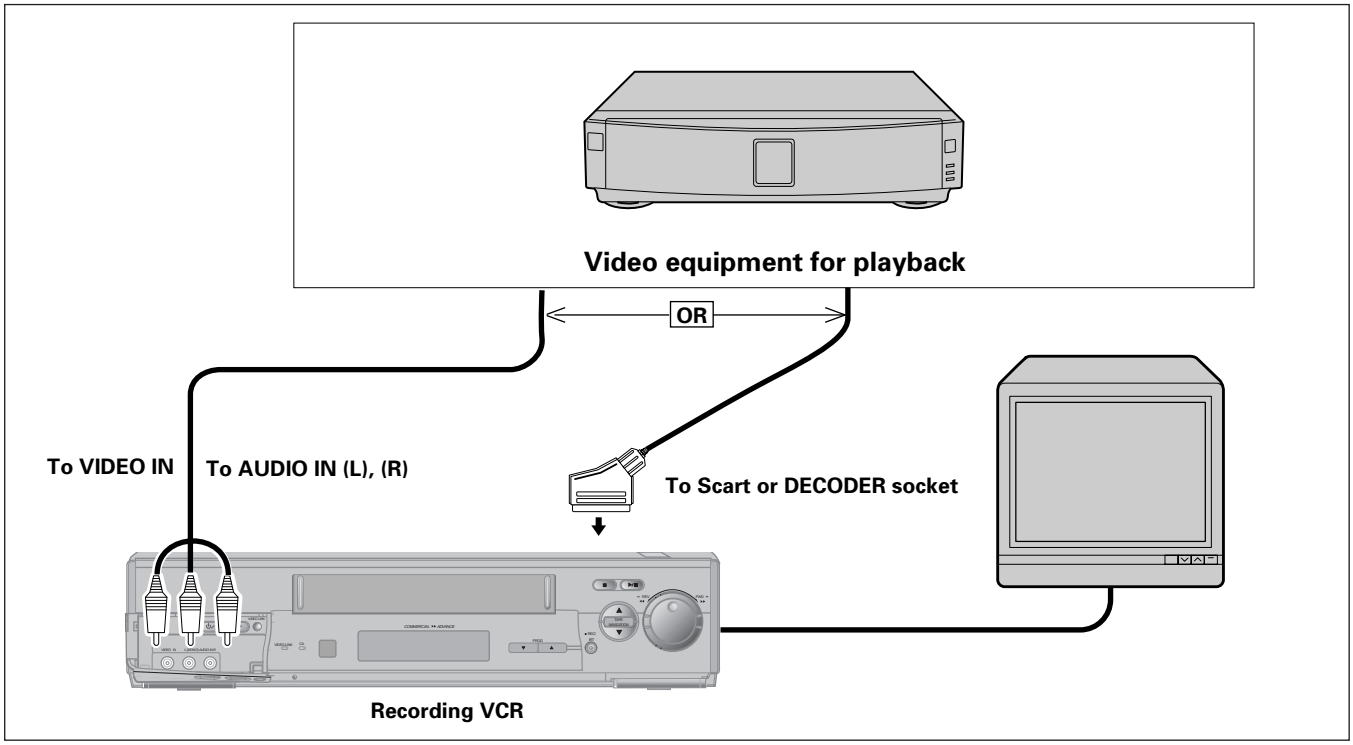
Insert a cassette into the VCR for recording, and the cassette to be copied into the playback VCR.

ADDITIONAL OPERATIONS

(EDITING — Tape Dubbing)

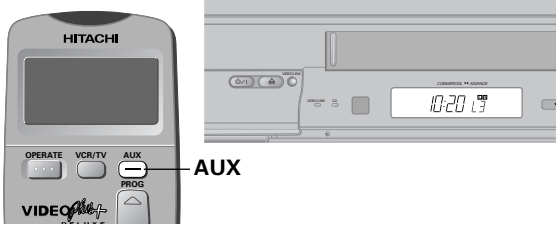
	Controls	VCR Display	
5			**Press the REC button** on the recording VCR and the play button on the playback VCR.
6			To edit out unwanted material, **press the pause button** on the recording VCR while it is recording at the appropriate time. Press the pause button again to resume recording.
7			To end tape dubbing, **press both stop buttons**.

EDITING — Synchro Editing



This VCR can be used both for recording and playback. Whichever case you choose, the procedure is the same as explained below. Synchro editing is possible if the two VCRs have different remote control codes ("VCR1" and "VCR2").

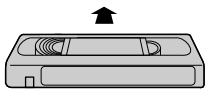
Note: If "VCR1" appears in the remote display when a button on the remote control is pressed, and A-2 flashes in the VCR display, change the remote control code of the recording VCR (this VCR) to "VCR2". See page 60 for how to change the remote control code.

Controls	VCR Display	
1		Connect the second VCR to this VCR as shown above. (Refer to the manual of second video equipment for connection.) **Note:** If the second video equipment has only single audio output, connect it to the L-AUDIO IN socket to record audio on the L and R channels. If a playback video source is connected to the Scart socket, the TV can be connected to the RF OUT terminal or any other Scart Sockets of this VCR.
2		Turn on the VCR and the TV, then set the TV to the video programme number.
3		**Press the AUX button** to display "L1", "L2" or "L3" in the VCR display. Select "L3" to record the source input via the VIDEO IN/AUDIO IN jacks, "L2" to record the source input via the DECODER socket or "L1" to record the source input via the Scart socket on the back of the VCR.

(EDITING — Synchro Editing)

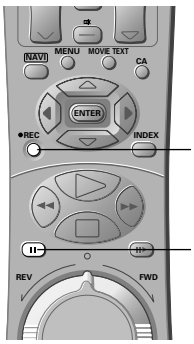
Controls **VCR Display**

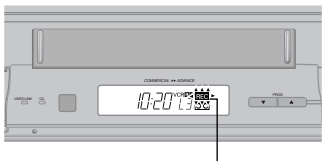
4



Insert the cassette that you want to copy in the playback VCR. **Locate the place on the tape you want to begin copying and set the VCR to play-pause mode.**

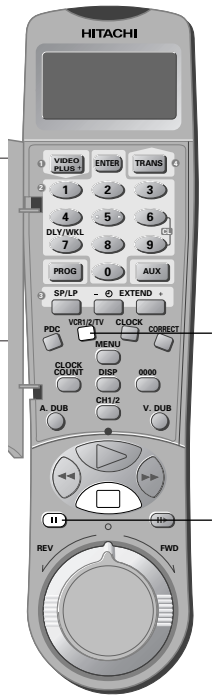
5





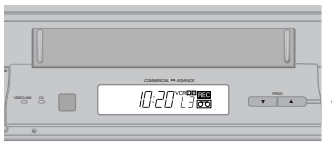
Place a cassette with its safety tab intact in the recording VCR. **Set the recording VCR to recording-pause mode.**
The REC indicator on the VCR will light up.

6



Press the VCR1/2/TV select button on the remote control handset to display "TV".

7



Press the pause (II) button on the remote control handset to start copying the tape. Both VCRs will start together.

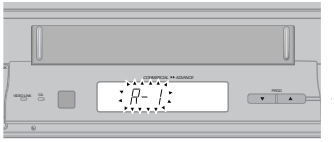
8

Press the pause (II) button on the remote control handset again when you want to interrupt copying the tape.
Both VCRs will enter the pause mode.

If the next segment you want to copy is located at some distance away on the tape, use the Fast forward, Rewind or Play button on the playback VCR to locate the place on the tape you want to begin copying again. Then set the playback VCR to play-pause mode. Press the pause button again and both VCRs will begin copying.

9

Press the stop buttons on both VCRs when you are finished.



Note: To display the remote control code in the VCR display, press the pause (II) button.
A-1 flashes in the VCR display.

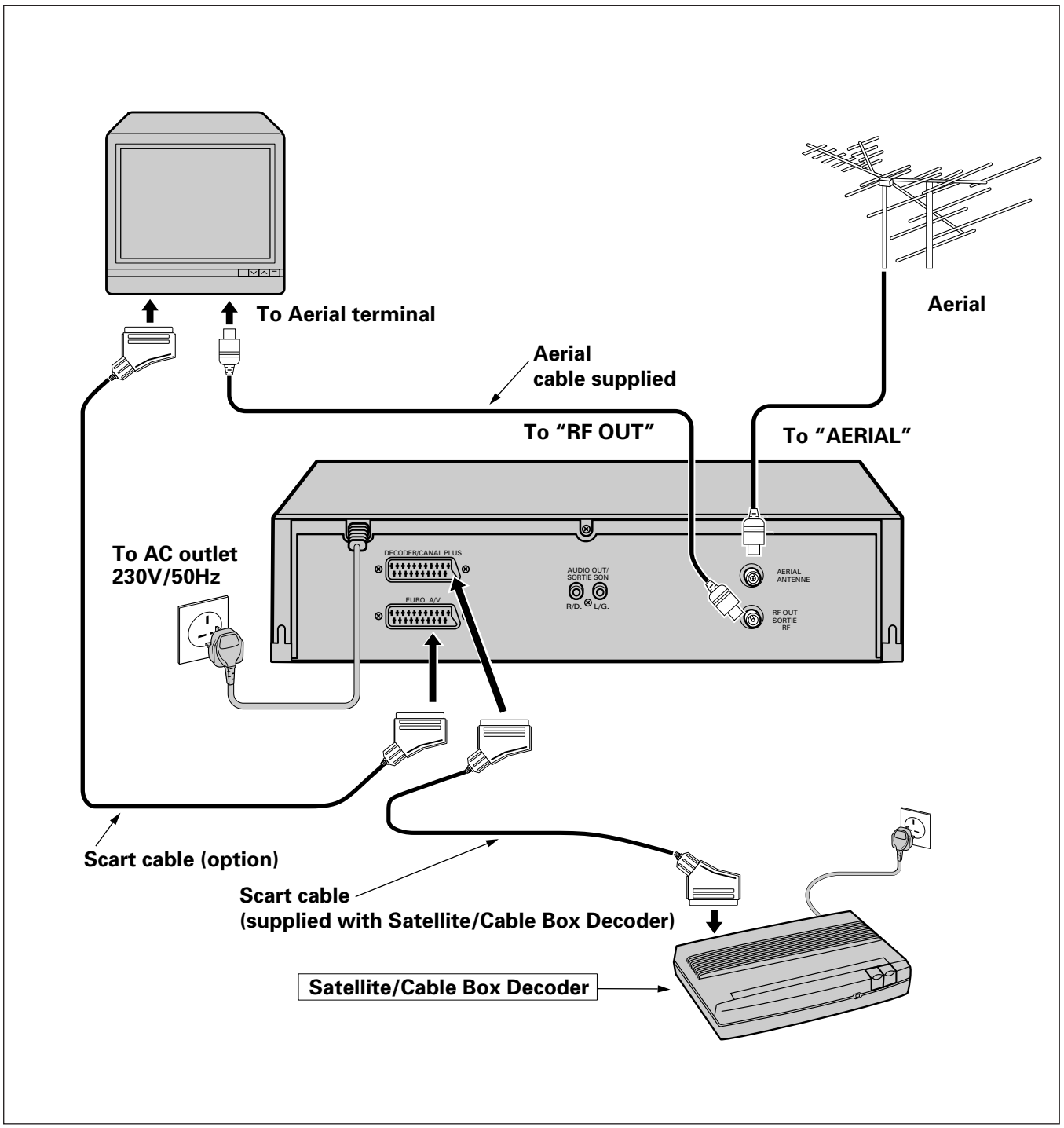
“SATELLITE/CABLE BOX” DECODER OPERATION

Connect the “Satellite/Cable Box” decoder as follows.

What is a “Satellite/Cable Box” Broadcast?

The radio waves are transmitted from the broadcasting station in the same way as an ordinary TV broadcast in the “Satellite/Cable Box” system, however, the radio waves are scrambled, therefore you cannot receive them or view the broadcast on the TV without unscrambling. You must connect an exclusive decoder to perform this unscrambling and then you can view the “Satellite/Cable Box” broadcast like an ordinary TV broadcast.

Consult your dealer for details.



(“SATELLITE/ CABLE BOX” DECODER OPERATION)

■ **To record the “Satellite/Cable Box” programme while viewing it**

1. Turn on the TV and VCR.
2. Set the TV to the programme number for VCR (video programme number).
3. Press the buttons labeled AUX on the remote control until “L2” is showing in the VCR display.
4. Start recording.

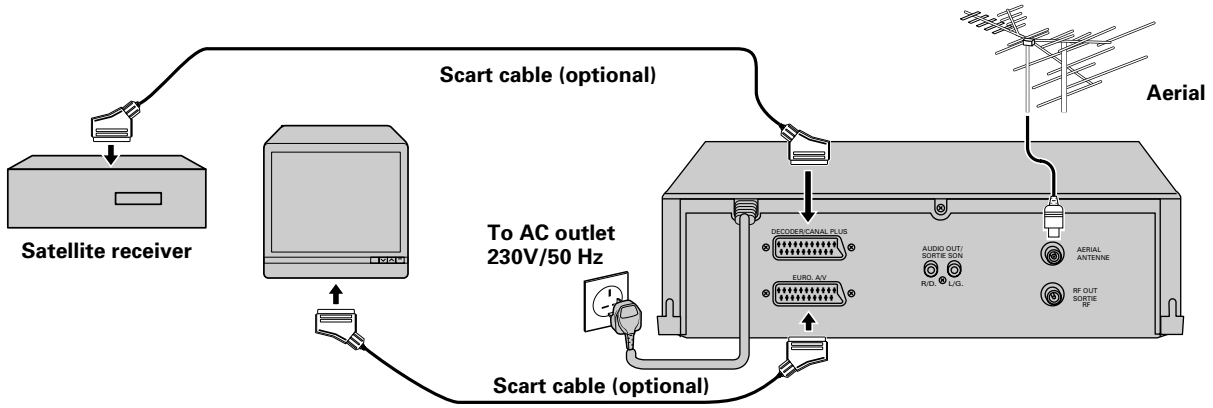
■ **You can view a “Satellite/Cable Box” programme even when playing back a tape by pressing the VCR/TV button to set the VCR to TV mode.**

SATELLITE RECEIVER OPERATION

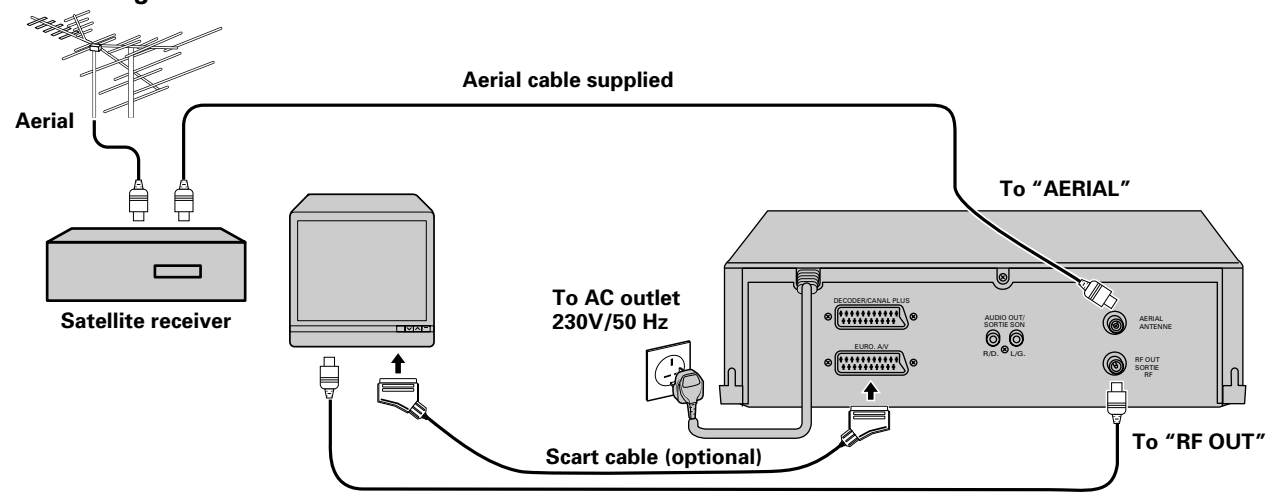
Connection

There are two connection methods according to the type of satellite receiver.

When using a Scart connector lead: **Method A**



When using an aerial cable: **Method B**

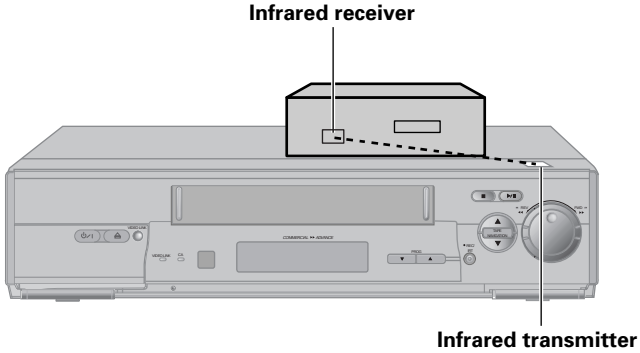


Programme the VCR to match the control system of your satellite receiver.
This VCR can control several types of satellite receiver to tune to satellite programmes and record them with the timer. You must first programme the VCR to match the system control code of your satellite receiver. Some satellite receivers do not have any corresponding codes. Such a satellite receiver cannot be controlled by this VCR.

Notes:

- Set your satellite receiver to the 2-digit programme number indication mode if your receiver is switchable.
- Place the satellite receiver on the VCR so that the VCR infrared transmitter is not blocked and is as close as possible to the infrared receiver of the satellite receiver.
- You can view a satellite programme even when playing back a tape by pressing the VCR/TV button to set VCR to TV mode. Depending on the type of a satellite receiver, its TV output socket must be connected to the VCR DECODER socket, to view a satellite programme.

Satellite receiver position



Note: Install the satellite receiver so its infrared receiver is not more than 15cm away from the VCR Infrared transmitter.

(SATELLITE RECEIVER OPERATION)

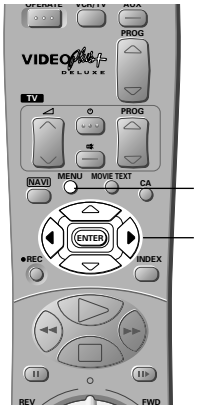
When connecting the VCR and satellite receiver using a Scart connector lead (Method A)

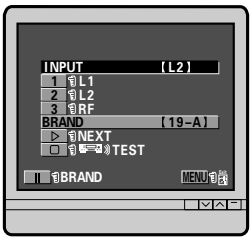
Controls **TV Screen**

1

Turn on the satellite receiver and select a satellite programme other than programme number 12.

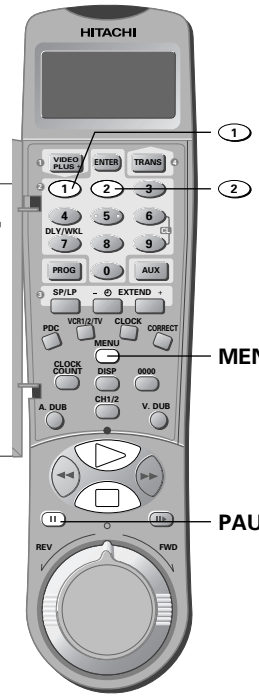
2





Turn on the VCR.
Point the handset at the front of VCR, then **press the MENU button.**
Press one of the cursor buttons to select SAT mode and then press the ENTER button.
The satellite control set-up menu appears on the TV screen.

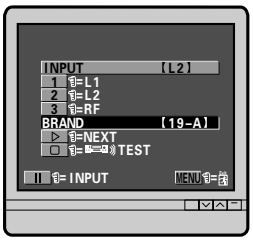
3



VCR Display

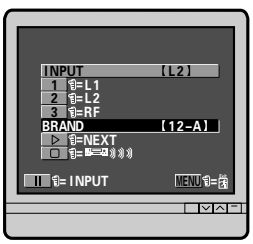
Press the ① button to select "L1" or press the ② button to select "L2".
The satellite picture should now appear on the TV screen.

4



Press the pause ⏸ button to enter your satellite receiver brand.
If this type number is incorrect for your satellite receiver, refer to table below. Enter the code using the number buttons on the remote control handset. After entering the numbers, the VCR will transmit a control signal to the satellite receiver.

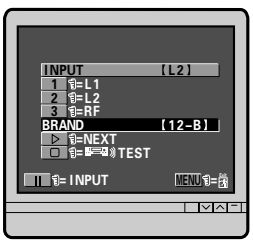
5



Press the stop ☐ button.
If the programme number of the satellite receiver changes to "12", your satellite receiver can be controlled by this VCR. **Press the MENU button** to end programming. If the programme number does not change to "12", follow the next procedure.

6

Satellite receiver Brand	Type Number
HITACHI	19
GRUNDIG	19
AMSTRAD	03
CAMBRIDGE	13
PACE	19
NOKIA	23
MASPRO	16
PHILIPS	20
TECHNISAT	26
FERGUSON	12
UNIDON	32



Press and release the play ▷ button.
If the satellite receiver programme number still does not change to "12", press the play ▷ button again. Repeat this step until the programme number changes to "12".
If your satellite receiver does not work after entering the code shown, please try alternative code from the table.
Note: With some satellite receivers, the programme number may not change to "12" even if the code is correct. Read the instruction manual of your satellite receiver carefully and set up the receiver correctly, then perform the above operation.

7

After programming the system control code, **press the MENU button** to return to normal operating mode.

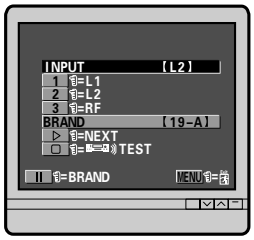
When connecting the VCR and satellite receiver using an aerial cable (Method B)

Controls **TV Screen**

1

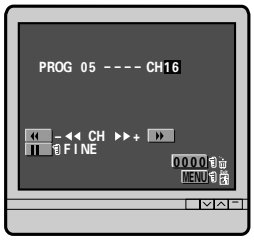
Turn on the satellite receiver and select a satellite programme other than programme number 12.

2



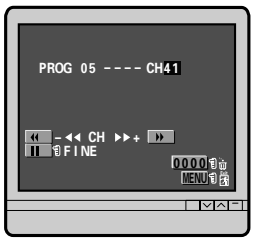
Point the handset at the front of VCR, then **press the MENU button.**
Press one of the cursor buttons to select SAT mode, and then press the ENTER button.
The satellite control set-up menu appears on the TV screen.

3



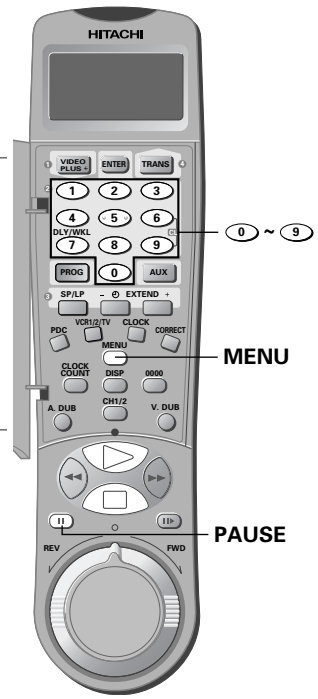
Press the 3 button.
The channel preset menu appears on the TV screen.
If you press the PROG ▲/▼ button the programme number will change.

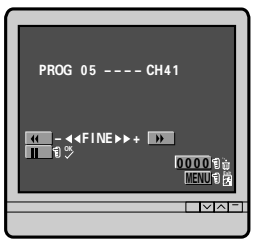
4



Press and release the fast forward ►► or rewind ◄◄ button to start searching for the satellite programme.
If the RF output channel is known from satellite receiver, press the 0 ~ 9 buttons on the remote control. When a "satellite" picture appears on the TV screen, **press the pause (II) button** to store this station number.
The programme number turns black. If not, press the **pause (II)** button again.

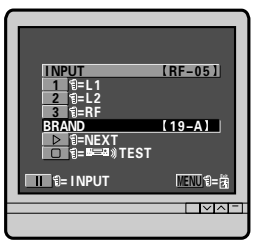
5





Press the pause (II) button to store this programme number.
The satellite control set-up menu appears on the TV screen.
The connection display changes from "(L2)" to "(RF-05)".

6



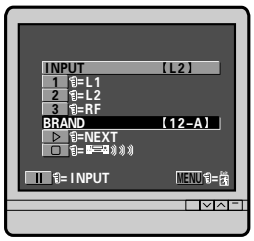
Press the pause (II) button to enter your satellite receiver brand.
If this type number is incorrect for your satellite receiver, refer to table on the next page. Enter the code using the number buttons on the remote control handset. After entering the numbers, the VCR will transmit a control signal to the satellite receiver.

(SATELLITE RECEIVER OPERATION)

Controls **TV Screen**

7

Satellite receiver Brand	Type Number
HITACHI	19
GRUNDIG	19
AMSTRAD	03
CAMBRIDGE	13
PACE	19
NOKIA	23
MASPRO	16
PHILIPS	20
TECHNISAT	26
FERGUSON	12
UNIDON	32



Press the stop ☐ button .
If the programme number of the satellite receiver changes to "12", your satellite receiver can be controlled by this VCR. **Press the MENU button** to end programming. If the programme number does not change to "12", follow the next procedure.

8

Press and release the play ▷ button.
If the satellite receiver programme number still does not change to "12", press the play ▷ button again. Repeat this step until the programme number changes to "12".
If your satellite receiver does not work after entering the code shown, please try an alternative code from the table.
Note: With some satellite receivers, the programme number may not change to "12" even if the code is correct. Read the instruction manual of your satellite receiver carefully and set up the receiver correctly, then perform the above operation.

9

After programming the system control code, **press the MENU button** to return to normal operating mode.

Note: This list of satellite receiver brands is a guide only and does not imply that all models produced under these brand names can be operated. It is possible that a particular model may not work even though the brand name is listed.

IMPORTANT NOTICE:

The satellite mode must be preset before the VCR control the satellite receiver. There are 4 common methods:

a) There is no need to set the satellite receiver even though the satellite receiver mode is power off.

b) Satellite receiver must be power on.

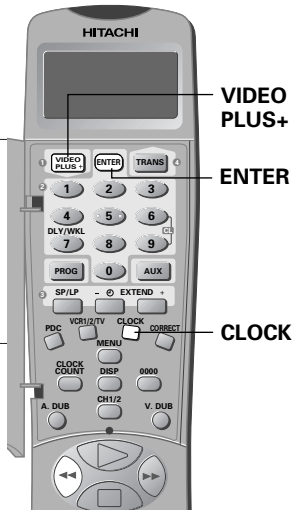
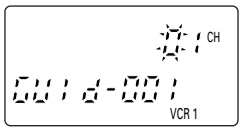
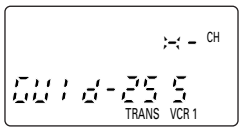
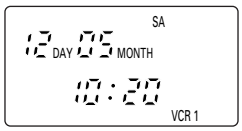
c) If the satellite is switchable, set to the 2-digit programme number indication mode.

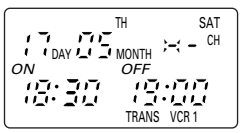
d) Satellite receiver must be power on and set to the 2-digit programme number indication mode.

VIDEO Plus+ System Setup

Changing the satellite programme allocations

Satellite receivers are normally supplied pre-programmed to SKY-Order or TRANSPONDER-Order. To check which Order your satellite receiver is using, select a programme and check the table below. The satellite programme allocation on this VCR has been preset to SKY-Order. If your satellite receiver uses the TRANSPONDER-Order you should change the allocations by following the procedure below.

	Controls	Remote Display	
1			Press the ENTER button and hold it, then press the VIDEO PLUS+ button. "GUId-001" and "01CH" appear.
2			Press the rewind ◄◄ button once, then press the ENTER button. **Note:** The programme number of TRANSPONDER-Order is displayed when "TRANS" appears in the display.
3			Press the CLOCK button to switch the display on the handset back to normal. The allocation is now changed from SKY-Order to TRANSPONDER-Order.



Notes:

- If some of your satellite programme numbers are still different from the table shown below, you can alter individual programmes by following the steps below.
- To correct a satellite programme number (see step 3 – 5 page 74), enter a PlusCode number in the handset for the satellite programme you wish to record then press the ENTER button to display the programme details in the handset. Push the CORRECT button once, then enter the correct satellite programme number. Press the ENTER button and the new programme number will be memorised.

Satellite programme	Satellite programme Channel	
	SKY-Order	TRANSPONDER-Order
SKY ONE	1	8
SKY NEWS	2	12
SKY MOVIE	3	16
THE MOVIE CHANNEL	4	18
SKY MOVIE GOLD	5	26
SKY SPORTS	6	20
NICKELODEON & TV ASIA	7	46
BRAVO & THE ADULT CHANNEL	8	42
DISCOVERY & COUNTRY MUSIC TV	9	41
THE CHILDREN'S CH & THE FAMILY CH	10	35
UK GOLD	11	23
QVC	12	38
UK LIVING	13	34
MTV	14	15
CNN	15	22

Satellite programme	Satellite programme Channel	
	SKY-Order	TRANSPONDER-Order
EUROSPORT	16	47
CARTOON NETWORK & TNT	17	24
JSTV	18	37
MTV	19	4
DAS ERSTE	20	60
RTL2	26	52
PRO7	28	50
3SAT	29	28
PREMIERE	34	11
RTL5	37	19
TV3 SWEDEN	42	2
GALAVISION	44	6
CINEMANIA	45	14
DOCUMANIA	46	10
PREMIERE	76	17
TELECLUB	77	55
GALAVISION	78	44

Hi-Fi SOUND

This VCR records sound using the following two formats.

Hi-Fi sound

FM sound recorded using the rotary audio heads.

Normal (mono) sound

Records in monaural using the same format as with a non-Hi-Fi VCR. Therefore, conventional VCRs can be used for playback.

Remarkable Specifications of Hi-Fi Sound

Frequency Range:	20 Hz to 20 kHz
Dynamic Range:	More than 90dB
Wow and Flutter:	Less than 0.005% WRMS

Recording Stereo Broadcasts

Stereo programmes are recorded in Hi-Fi on both the L and R channels and also recorded on the mono track as monaural.

Recording Bilingual Broadcasts

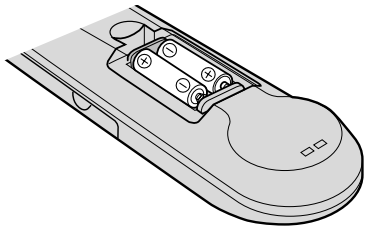
Both main speech and sub speech sounds are recorded on the Hi-Fi audio tracks separately. See “Audio to be recorded according to the NICAM broadcast” on page 29 for the sound that will be recorded on the mono audio track.

HOW TO OPERATE YOUR TV BY USING THE REMOTE CONTROL HANDSET

This remote control handset is designed to operate 15 different types of TV. You must first programme the handset to match the remote system of your TV.

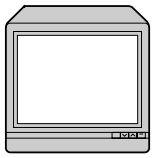
Controls **Remote Display**

1



Install the batteries in the handset and replace the battery cover when finished.

2

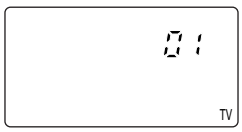


Turn on your TV.

3

Press the VCR1/2/TV select button to display "TV".

4



Press the PROG button.
"01 TV" appears in the display.

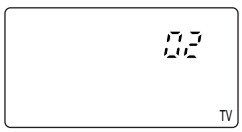
5

Point the handset towards the front of your TV, then **press one of the 0 ~ 9 buttons.**

If your TV changes channel, your TV can be controlled by this handset. Press the PROG button to clear "01 TV" from the display. The buttons on the handset shown on the next page will now control your TV.

If your TV channel number does not change, follow the next procedure.

6



Press the SP/LP button.
"02 TV" appears in the display.

The TV code number is counted up every time the SP/LP button is pressed.

7

Point the handset towards the front of your TV, then **press the 0 ~ 9 button.**
If your TV does not change the channel, try "03 TV", "04 TV" ..... "15 TV".

8

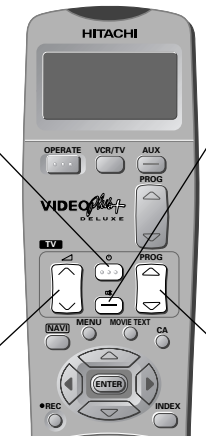
After programming the TV code number, **press the PROG button** to return to the normal remote display.

IMPORTANT NOTICE:
While this Hitachi handset is compatible with many television sets, it is possible that the handset will not work with your TV set.

If your TV does not respond to any of the above steps, the handset cannot operate your TV.

(HOW TO OPERATE YOUR TV BY USING THE REMOTE CONTROL HANDSET)

The TV operate, TV mute, TV volume ∨ / ∧ and TV PROG ⌓ / ▽ buttons can control your TV even if "VCR1" or "VCR2" is displayed. When you control the TV using the number buttons, be sure to check that "TV" is displayed.



TV operate Button
- Press to turn on your TV.
- Press again to turn off your TV.

TV volume ∧ / ∨ Buttons
- Press TV volume ∧ to increase the volume.
- Press TV volume ∨ to decrease the volume.

TV mute Button
- Press the TV mute button to quickly reduce the volume to the minimum level without affecting the picture.
- To restore the sound, press the TV mute button again.

TV PROG ⌓ / ▽ Buttons
- Press TV PROG ⌓ or ▽ to change the TV programme number.

Number Buttons 0 ~ 9
- Depending on the type of TV, these buttons can either control the TV or not.

On some TVs the following is applied:
To select channels 10 ~ 19 on the TV, press the – 🕘 EXTEND button and then buttons 0 ~ 9. When selecting channel 17, for example, press the – 🕘 EXTEND button and then button 7.
To select channels 20 ~ 29, press the 🕘 EXTEND + button and then buttons 0 ~ 9. To select channel 26, for example, press the 🕘 EXTEND + button and then button 6.

Only the remote control of the Mute feature is different between remote transmission codes "01 TV" and "02 TV". When only the Mute feature is not operated properly by the handset with "01 TV" ("02 TV") selected, set the transmission code to "02 TV" ("01 TV").

With some TVs, TV channel 12 can be selected by pressing the – 🕘 EXTEND button and then number buttons 1 and 2.

The handset has a memory which enables it to operate some Hitachi TVs and, in the same way, some TVs from other manufacturers.

TV code	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Coding system	NEC$50 PAL-50	NEC$50 UK-1	NEC$53 UK-2	NOKIA-3	NOKIA-2	NOKIA-1	SIEMENS	ITT	RC-5	Sony	Panasonic	Toshiba	Sharp	Mitsubishi	JVC
Type of TV	Hitachi TV	Hitachi TV	Hitachi TV	Hitachi TV	Hitachi Finlux TV	Hitachi TV	Hitachi Finlux TV	Sony TV	Hitachi Philips Loewe TV	Sony TV	Panasonic TV	Toshiba TV	Sharp TV	Mitsubishi TV	JVC TV

- Column "Type of TV" shows examples of TVs. Use this table as a reference when setting the TV code.

Section-4 Subsidiary Information

Problem Guide Page 82

Some problems you will be able to solve easily by checking a few basic items.
Please follow this section before you call for help or take your VCR to your dealer. It could save your time and money.

User Guide Display Page 83

Maintenance Page 84

Specifications Page 85

PDC function Page 86

Battery Safety Guidelines Page 87

Warranty Letter Page 89

Some Do's and Don'ts Page 91

PROBLEM GUIDE

Sometimes problems can be solved easily by checking a few basic things.
Check below before you call for help or take your unit to your dealer.

No power
- Check to see if the VCR is plugged into an AC mains socket.

Does not respond to remote control handset
- Check to see if there are batteries in the handset, their polarities are correct, and they are fitted correctly.
- Make sure "VCR1" or "VCR2" is displayed. (See "REMOTE" on page 60.)
- The handset is not aimed at the VCR.
- Weak batteries in the handset.

Will not record
- No cassette in the VCR.
- Safety tab removed from cassette.
  (In this case, the cassette will be ejected.)

Will not playback
- No cassette in the VCR.
- For playback, TV must be tuned to the video programme number.
- Set the TV to the video input mode when the VCR and TV are connected via a Scart connector (see your TV manual).
- Press the VCR/TV button on the remote handset to display the VCR indicator on the VCR display when the VCR and TV are connected via a Scart connector.

Snowy/Noisy picture
- Make sure the TV is fine tuned.
- Head cleaning may be required. See "MAINTENANCE".
- Some snow or streaks are normal during visual search, still and slow playback.

Will not make timer recordings
- The VCR should be in standby mode to activate timer recording.
- Programmes entered incorrectly.
- Clock was not set correctly.
- Programme exceeded cassette length.
- No cassette or cassette's safety tab is removed.

Cannot store tape data in memory
- Check that "TAPE NAVI ✓ " is specified in the TAPE NAVI MENU. If "—" is specified, switch it to " ✓ ".
- Check the time at which the recording was made. Data is not stored in memory when the recording time is less than 5 minutes.
- The tape data memory is full. Delete unnecessary tape data.

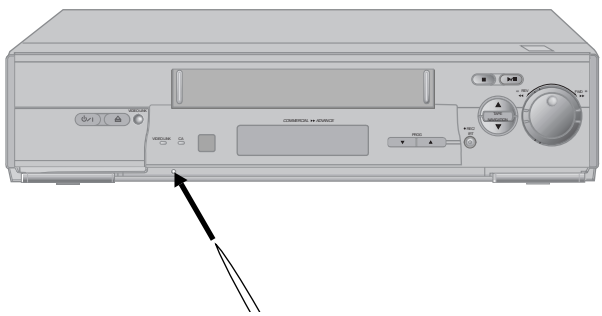
Cannot locate the beginning of a programme
- You cannot search for a programme you want to view from the tape recorded on another VCR.
- Rewind the tape to its start, then press NAVI button.

Clock shows — — : — —
- Power interrupted.

Poor/No picture in normal TV viewing
- Carefully check aerial connection.

Indication of the VCR display appears abnormal/No button can be engaged
- Push the reset switch using a toothpick, etc.
  The display will be reset. Then set the information again.

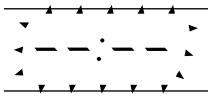
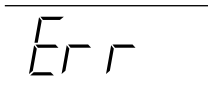
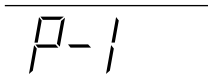
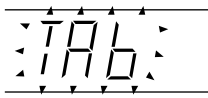
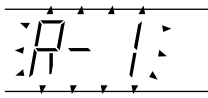
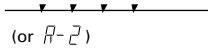
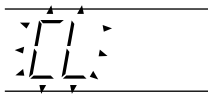
Auto Install does not function.
- You have failed to engage Auto Install function (See page 11).
  Proceed with pre-tuning (See page 13).



USER GUIDE DISPLAY

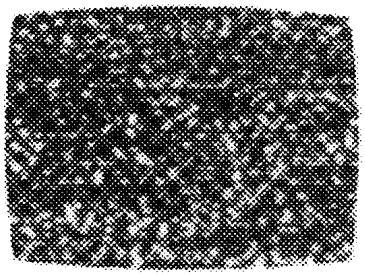
Guide indications in VCR display

The following indications appear in the VCR display to tell you the current status of your VCR.

Indication	When it appears	Meaning and troubleshooting
 (flashes for about 5 seconds)	When programming the timer	• The VCR clock has been set to "– – : – –". Set the time and programme the timer.
 (flashes for about 5 seconds)	When programming the timer	• Your timer programme has a TV programme channel number that you have not preset in the VCR. Correct the channel.
(flashes for about 5 seconds)	When programming the timer	• Twelve programmes have already been stored. Cancel unnecessary programme and transfer the new programming.
 (lights for about 5 seconds)	When you press the TRANS button on the remote to transfer the programme details	• The VCR shows the timer programme number which is transferring from remote control.
(flashes uninterruptedly)	When you turn off the power after programming the timer or transfer the programming with power off	• A cassette has not been inserted or a cassette without safety tab has been inserted. A cassette without safety tab will be ejected automatically. Insert a cassette with safety tab intact.
(flashes for about 3 seconds)	When you press the play, record, fast forward or rewind button or operate Shuttle	• A cassette has not been inserted. Insert a cassette.
 (flashes for about 3 seconds)	When you press the record button for recording or dubbing	• A cassette without safety tab has been inserted. It will be ejected automatically. Insert a cassette with safety tab intact.
 (or ) (flashes for about 3 seconds)	When you press VCR1/2/TV button on the remote control	• The remote code is set to "1" in the VCR MODE menu, but "VCR2" appears in the remote display. Press the VCR1/2/TV button on the remote control so that "VCR1" appears.
 (flashes for about 3 seconds)	When you turn on the power	• The video heads are dirty. Cleaning them is recommended. To switch off the CL display, clean the head, turn off the power, and press the PROG ▲ button. The CL display automatically switches off when recording and playback are performed for about 5 hours after it appears.

MAINTENANCE

1. To maintain the optimum performance of this VCR, regular periodic maintenance is required. Your dealer will advise you further.
2. Maintenance and adjustments may not be carried out by the user. In all cases of difficulty or doubt, consult your dealer.
3. Head cleaning
   Dirt accumulated on the video heads after a period of time may cause the playback picture to become blurred or part of the video information to be lost. This does not mean that the recorded programme has been erased but head cleaning is required.



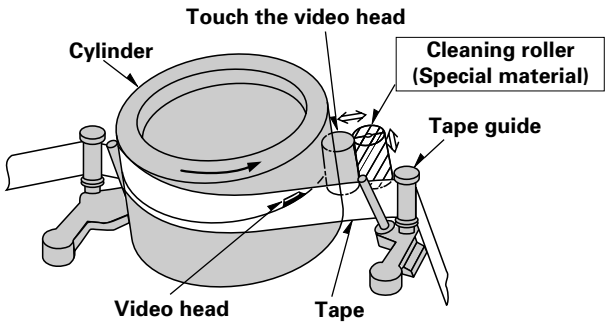
Since this VCR uses an auto head cleaning system, dirt does not often adhere to the heads.

- If dirt still cannot be removed, consult your dealer.

Auto Head Cleaning System

This system cleans the video heads automatically when a cassette is inserted and ejected or the VCR is turned on or off while a cassette is in the VCR, to prevent dirt from accumulating on the heads.

Note: Mechanical sound is heard during head cleaning.



SPECIFICATIONS

Format:	VHS PAL Standard
Recording:	Rotary Two-Head Helical Scan Azimuth Recording
Tape Speed:	23.39 mm/sec. — SP, 11.7mm/sec. — LP
Tape Width:	12.7 mm
Operation Temperature:	5°C to 40°C
Video:	PAL colour (system I) & CCIR monochrome signals 625 lines
Recording Time:	240 min. with E-240 cassette — SP 480 min. with E-240 cassette — LP
Aerial Input:	UHF channels 21 — 69
RF Output:	UHF channel 35 (21 — 69 adjustable) (System I)
Video Input:	0.5 to 1.5Vp-p 75 ohm Unbalanced
Video Output:	1Vp-p 75 ohm Unbalanced
S/N Ratio (Video):	More than 43 dB
Horizontal Resolution:	Colour 260 lines
Audio (Linear)	
Input:	PERI: – 3.8 dBm 10 kohm, LINE: – 7.8 dBm 50 kohm
Output:	PERI: – 3.8 dBm 1 kohm, LINE: – 7.8 dBm 1 kohm
S/N Ratio:	43 dB
Frequency Range:	70 Hz to 12 kHz
Hi-Fi Audio	
Frequency Range:	20 Hz to 20kHz
Dynamic Range:	More than 90dB
Wow and Flutter:	Less than 0.005% WRMS
RF Audio Reception:	NICAM Digital Stereo (I-PAL)
Rewind Time:	About 54 seconds with E-180 cassette
Power:	AC 230V, 50 Hz
Power Consumption:	20W (including timer) 2.9W (standby mode)
Timer:	24-hour digital indication
Cabinet Size:	430 mm(W) × 93 mm(H) × 276 mm(D)
Weight:	Approx. 4.0 kg
Accessories Included:	1 — Aerial cable 1 — Infrared remote control handset 2 — Batteries

* Design and specifications are subject to change without notice.

PDC (Programme Delivery Control) FUNCTION

This VCR incorporates the PDC function.

PDC function

If the VCR is tuned to a TV station transmitting a PDC signal, the VCR automatically takes any delay, early starting or extension of the programme into account when recording the specified programme. For example, assume that you programme the timer for a football game on station 8 from 19:00 to 20:45 on Saturday and the football game which is broadcast is changed from 21:00 to 23:00, the PDC function works and the VCR records the football game automatically from 21:00 to 23:00.

Caution:
For the PDC function to work, the start and end time must be keyed-in EXACTLY as scheduled (as advertised); even though the actual broadcast may vary from the schedule.

Notes:

1. The first time you do timer programming with this set, the PDC function is off.
2. To switch on the PDC function, press the PDC button once. Pressing the button again turns PDC off.
3. Subsequently, the on/off default follows your previous setting.
4. Always programme the timer for one TV programme to record the programme with the PDC function turned on. If you programme the timer for a football game and a movie on station 3 sequentially from 10:00 to 14:00 for example, only the football game will be recorded but the movie will not.
   In this case, programme the timer with the PDC off or input the other programme using another programme number to turn on the PDC function again.
5. When the VCR is tuned to a station transmitting a PDC signal but the signal conditions are poor, programme the timer with PDC turned off. If you programme the timer with PDC turned on, the PDC function does not operate normally.
6. When reviewing the programmed information as shown in the TV screen above, you can see the marking of "✔" at the end of the programmed details. (Refer to programme No. 1 and 2). This indicate that the PDC function is turned on when performing the timer programming.
7. If the broadcast programme does not have a PDC signal, your timer recording will function according to the time you have preset on the VCR.
8. A programme without PDC signal will be deleted after it has been recorded. Whereas, the programme with PDC signal will only be automatically deleted after 4:00 am the next morning.

HITACHI – YOUR GUARANTEE OF EXCELLENCE (for UK only)

For the period of **12 MONTHS** from the date of purchase your product has the benefit of our **FULL PARTS AND LABOUR GUARANTEE** as detailed below.
We undertake to replace or repair any part of the product which fails due to manufacturing defect within 12 months of the date of purchase provided that:

1) The product has been installed and used only in accordance with the instructions supplied with the product.
2) The product has not been repaired, maintained, or modified by any person other than our authorized Engineer.
3) The product serial number is not removed or altered.

This guarantee does not apply to products acquired second-hand or for commercial or communal use.
This guarantee does not extend to user control adjustments, battery replacement and aerial adjustment.
Any parts replaced under guarantee shall become the property of HITACHI HOME ELECTRONICS EUROPE LTD.
Please note that evidence of the date of purchase will be required before service under guarantee is carried out.
This guarantee does not affect your statutory rights. In all cases of difficulty consult your HITACHI dealer.

HITACHI HOME ELECTRONICS (EUROPE) LTD.
Dukes Meadow Millboard Road Bourne End
Buckinghamshire SL8 5XF
UNITED KINGDOM
Tel: 01628 643000
Fax: 01628 643400
Email: consumer-service@hitachi-eu.com

SOME DO'S AND DON'TS ON THE SAFE USE OF EQUIPMENT

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

★★★★★★★★★★

DO read the operating instructions before you attempt to use the equipment.
DO ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug when making or changing connections.

DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

DO be careful with glass panels or doors on equipment.

★★★★★★★★★★

DON'T continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way — switch off, withdraw the mains plug and consult your dealer.

DON'T remove any fixed cover as this may expose dangerous voltages.

DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off using the switch on the equipment and make sure that your family know how to do this. Special arrangements may need to be made for infirm or handicapped people.

DON'T use equipment such as personal stereos or radios so that you are distracted from the requirements of traffic safety. It is illegal to watch television whilst driving.

DON'T listen to headphones at high volume, as such use can permanently damage your hearing.

DON'T obstruct the ventilation of the equipment, for example with curtains or soft furnishings. Overheating will cause damage and shorten the life of the equipment.

DON'T use makeshift stands and ***NEVER*** fix legs with wood screws — to ensure complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.

DON'T allow electrical equipment to be exposed to rain or moisture.

ABOVE ALL

— *NEVER* let anyone especially children push anything into holes, slots or any other opening in the case — this could result in a fatal electrical shock;

— *NEVER* guess or take chances with electrical equipment of any kind

— it is better to be safe than sorry!

★★★★★★★★★★

HITACHI

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Printed in Malaysia

QUICK SET UP GUIDE

Hitachi Video Cassette Recorder

VT-FX980E(UKN)

Dear Hitachi Customer,

Congratulations on your choice of Hitachi Video Cassette Recorder (VCR). Welcome to our company-wide commitment to your complete satisfaction and viewing enjoyment.

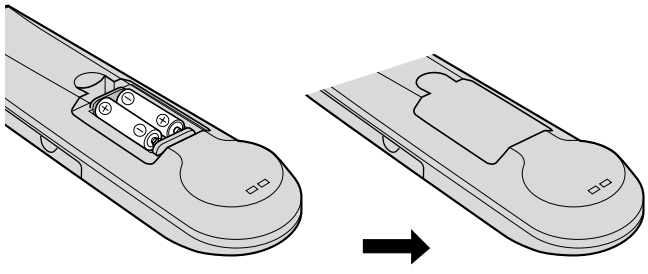
Before using your Hitachi VCR for the first time, we suggest that you spend a few minutes reading these set-up instructions.
Even if you never used a VCR before, you can connect it up and tune it in quickly by following this Quick Set-Up Guide.

Contents

- Accessories Supplied 1
- Connection 2
- Auto Install 3–4
- Pre-Tuning the Built in Tuner.....5
- Setting Your Remote Control Handset 6

Fitting the Remote Control Batteries

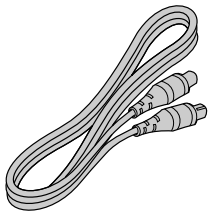
- Remove battery cover of the remote control handset.
- Insert the two batteries provided.
- Ensure that the + and – terminals match those marked inside the battery compartment.
- Replace the battery cover.



Accessories Supplied

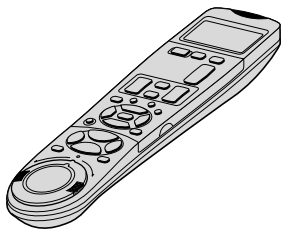
Check and identify the accessories supplied. If any are missing or appear damaged, contact your dealer immediately.

①



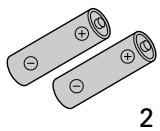
Aerial cable for connecting this VCR and a TV

②



Remote control handset

③



2 pcs.

Batteries for remote control handset (R6)

Cautions:
When the VCR is moved from a cold to a warm place, **dew** condensation can occur on the cylinder.
To avoid damaging the cylinder or tape **do not operate** the set immediately. Allow it to dry by **leaving it powered** on for 2 ~ 3 hours.

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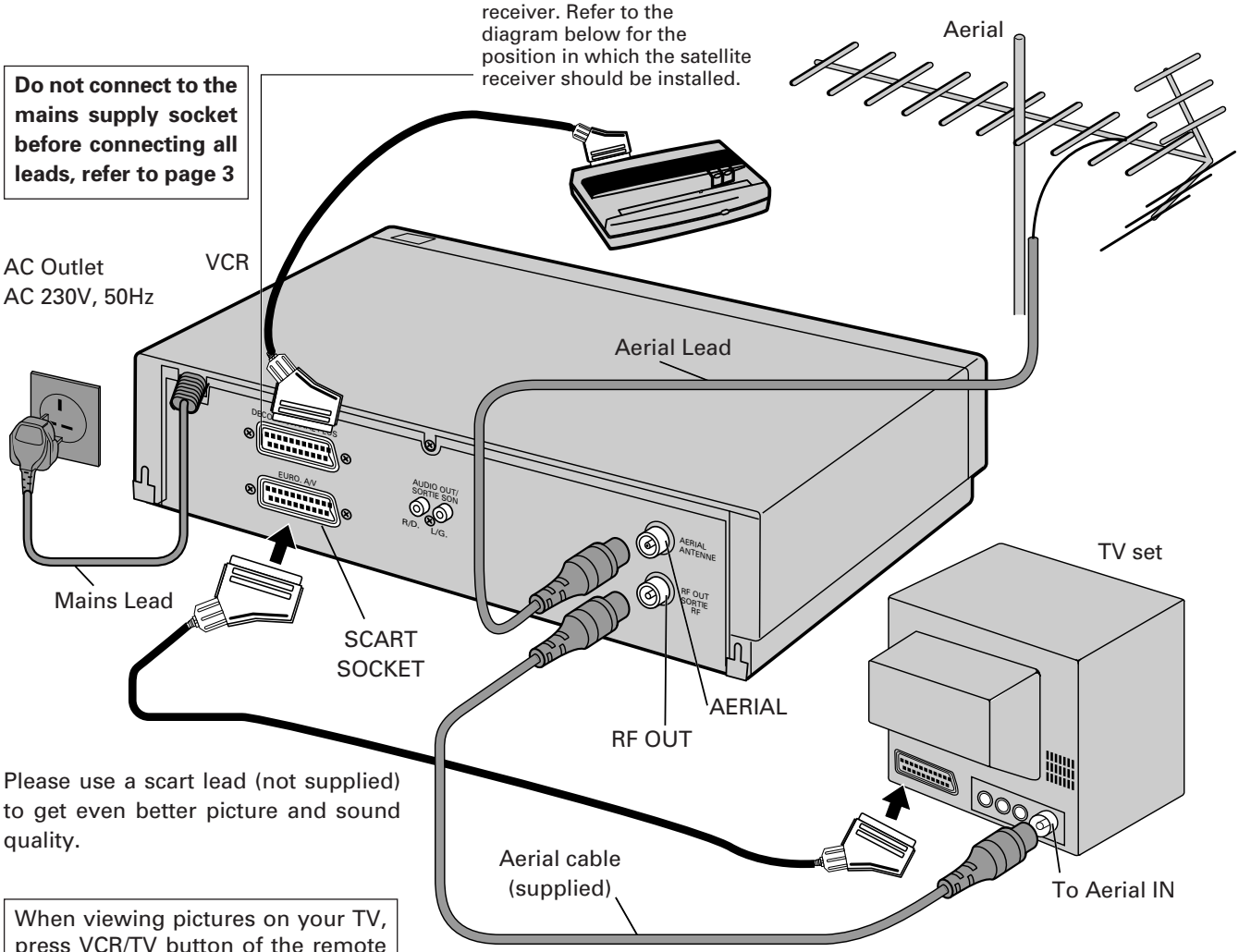
Connection

Connect the set and cables as shown below **but do not** connect the VCR to the mains power supply just yet. Otherwise auto installation will not work.

DECODER SET
Satellite box or satellite receiver. Refer to the diagram below for the position in which the satellite receiver should be installed.

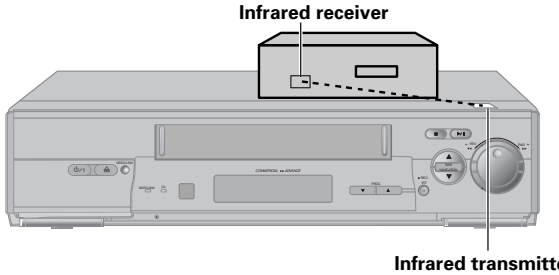
Do not connect to the mains supply socket before connecting all leads, refer to page 3



Please use a scart lead (not supplied) to get even better picture and sound quality.

When viewing pictures on your TV, press VCR/TV button of the remote control handset so the VCR indicator lights in the VCR display.

satellite receiver position



Note: Install the satellite receiver so its infrared receiver is not more than 15 cm away from the VCR infrared transmitter.

AUTO INSTALL

Auto Install (Plug & Play) function

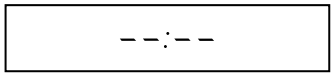
This automatically tunes all broadcast channels, sets the clock and date.

To proceed as follows;

1 Plug the aerial lead into the VCR. Plug the aerial cable (supplied) from the VCR RF OUT into the TV aerial input. Please refer to page 2.

VCR/TV screen **TV screen**

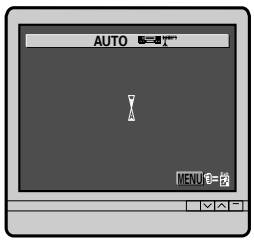
2



Connect to mains power supply socket after completely connecting all leads (as described in page 2, Connection).

The VCR will be in standby mode at this stage and the VCR display will show "– – : – –".

3



Press the OPERATE button.

" Auto " will appear in the VCR display.

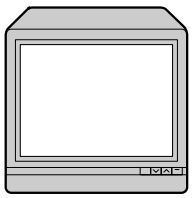
During this time, if your set-up includes Scart connector and the TV is set to Scart input, the TV screen will display as shown.

4

After this process is complete, the RF output channel will appear in the VCR display.
For Example, RF output channel 35.

Refer to item 6 for further tuning.

5



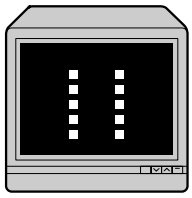
Switch on your TV and select an unused programme number. i.e. one not used for BBC1, ITV, etc. (Please consult your TV instruction manual as your TV may have a special VCR programme number which must be used.)

Note: This programme number will be your VCR programme from now on.

AUTO INSTALL

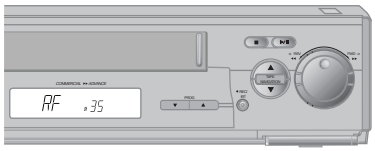
VCR TV

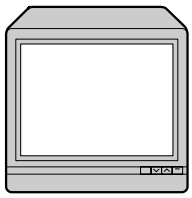
6



Tune your TV (consult your TV instruction manual) until the test pattern shown appears. The correct tuning position is when the picture is clear. Ensure this programme is stored in your TV.

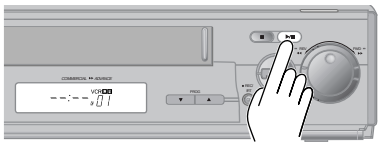
7

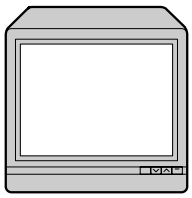




If the VCR display "RF OFF", press the STOP button. The RF channel data will appear on the VCR display. **Press the PROG ▲ or ▼ button** to change the RF channel to "RF 35". To stop the RF output, press the stop on the remote control or on the VCR button.

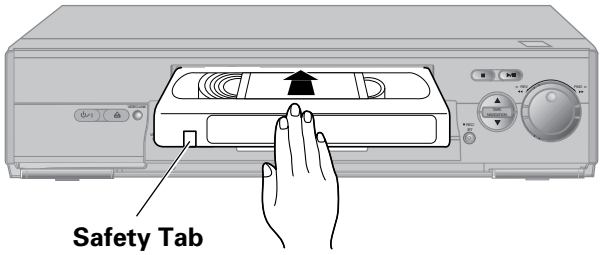
8





Press the play/still (▶/II) button, the test pattern will disappear and the VCR will now come out of the standby mode into the operate mode.

9



You should now be able to playback a prerecorded cassette.
Insert the cassette as shown. If the safety tab is removed then playback will start immediately. If not, press the play/still **(▶/II)** button and the picture will appear on the screen.

IMPORTANT:
Insert the cassette squarely into the VCR. Push the cassette until the machine carries the cassette in itself. Never force a cassette, in as this may damage the mechanism.

Pre-Tuning the Built in Tuner

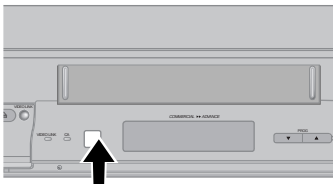
Mis-Operation of Auto Install

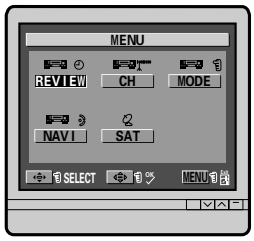
In the case of mis-operation on the Auto Install on page 3 and page 4, please follow the procedure of pre-tuning as shown below.

Controls **TV Screen**

1 **Turn on the TV and the VCR, then tune the TV to the video programme number.**
If you connect the VCR and TV using a 21-pin Scart connector lead, select the 21-pin Scart input of the TV.

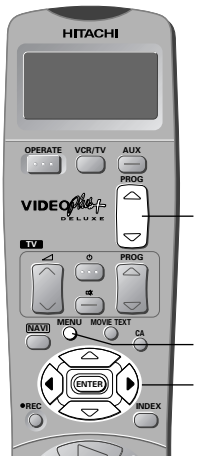
2

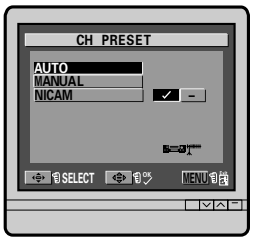




Press the MENU button.
The menu, as illustrated, appears on the TV screen.

3





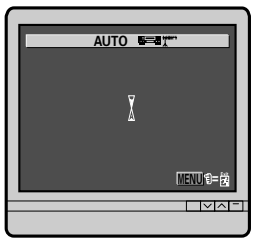
Press the ▶ cursor button to select the CH option, and press the ENTER button.
The CH PRESET display, as illustrated, will appear on the TV screen.

4

PROG

MENU

Cursor

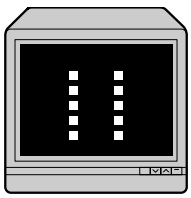


Press the ENTER button to select AUTO.
The display, as illustrated will appear on the TV screen and "Auto" will appear in the VCR display.
The VCR will start auto tuning, auto channel mapping, auto clock setting, and auto RF seek function. It takes about 3 minutes.
The following stations are stored in programme numbers 01 — 05 automatically.

01 BBC1
02 BBC2
03 ITV
04 CH4 (or S4C)
05 CH5

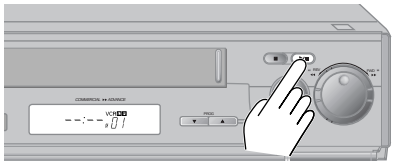
Note: If the station does not transmit a signal which identifies itself, the station name will not appear.

5



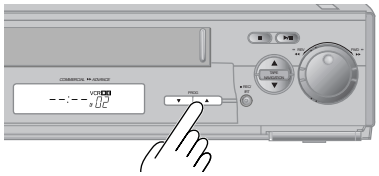
Tune your TV (consult your TV instruction manual). The correct tuning position is when the picture is clear.
After this process is complete, the test pattern will appear on the TV screen, and the RF output channel will appear in the VCR display.

6



Press the PLAY/STILL button.
The test pattern will disappear and the VCR change to the operate mode.

7

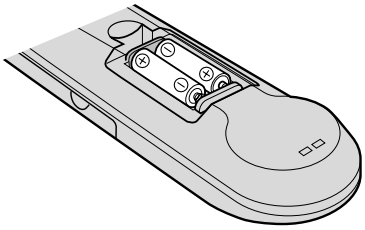


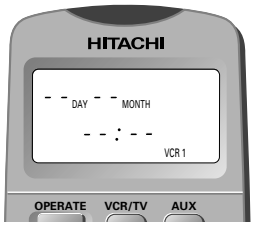
Press the PROG (▲/▼) buttons to check the channels you can receive.

Note: If no channels have been set or a clear picture does not appear, check the aerial or scart connection.

Note: When the pre-tuning of a channel is completed, the current time will appear in the VCR display. This is because the auto clock setting function has operated and the VCR clock has been set automatically. (See page 19 for details.)

Setting Your Remote Control Handset



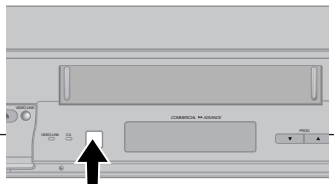


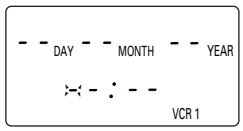
Remove battery cover of the remote control handset.
Insert the two batteries provided.
Ensure that the + and – terminals watch those marked inside the battery compartment.

Initial display after inserting the batteries

Replace the battery cover

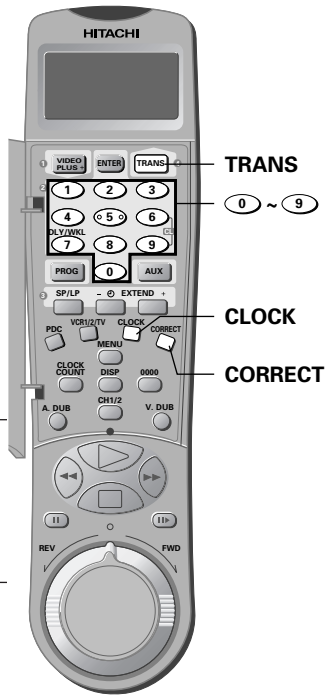
1





Press the CLOCK button (the first digit flashes).

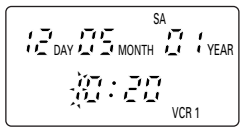
2



Enter the current time using the number keys in 24Hr notation.

e.g. 1 0 2 0 ——→ 10:20 am

2 2 2 0 ——→ 10:20 pm



Enter today's date, month and year.

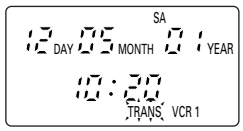
e.g. 1 2 0 5 0 1 ——→ 12. May 2001

2 0 0 3 0 2 ——→ 20. March 2002

The day of the week appears and the first digit of date then flashes.

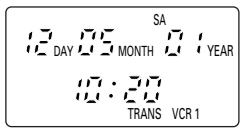
Note: At any stage during the number entry you can correct any errors by pressing the CORRECT button until the incorrect digit flashes, then you can enter the correct number.

3



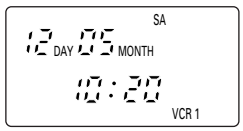
Press the CLOCK button.
"TRANS" now blink in the display.

4



Point the handset at your VCR, **press the TRANS button.**
The time will appear in the VCR display.
"TRANS" now stop blinking in the display.

5



Press the CLOCK button.
The handset and the VCR clock have now been set up.

FOR FURTHER INFORMATION PLEASE CONTACT OUR CUSTOMER HELP LINE ON
01628-643029